THE STATE OF SOUTH CAROLINA
IN THE SUPREME COURT

APPEAL FROM RICHLAND COUNTY
COURT OF COMMON PLEAS

The Honorable John Hamilton Smith, Special Referee

Case No. 2010-CP-40-8943R

COLUMBIA VENTURE, LLC, ... APPELLANT,

v.

RICHLAND COUNTY, ... RESPONDENT.

AMICUS CURIAE BRIEF OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

John S. Nichols, S.C. Bar No. 4210
Bluestein, Nichols, Thompson, & Delgado, LLC
1614 Taylor Street
Post Office Box 7965
Columbia, South Carolina 29202
(803) 779-7599
jsnichols@bntdlaw.com

Counsel for Association of State Floodplain Managers

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Federal Cases

State Cases

Federal Statutes

Federal Regulations

Reports and Issue Papers

Articles

Other Materials

STATEMENT OF INTEREST

In the United States, flood risks are identified and managed through the National Flood Insurance Program ("NFIP"). 42 U.S.C. § 4001 *et seq*. The NFIP was enacted in response to the nation's escalating flood peril and the mounting costs of taxpayer-funded disaster relief for flood victims. The three basic parts to the NFIP - mapping, insurance, and regulations – are "interconnected and mutually supportive."[1] The technical basis for the administration of the NFIP is flood risk information prepared by the Federal Emergency Management Agency ("FEMA") in the form of Flood Insurance Studies and Flood Insurance Rate Maps ("FIRM").[2] A FIRM, more commonly known as a Flood Map, identifies property within a Special Flood Hazard Area, which is land within the floodplain of a community subject to a one percent or greater chance of flooding in any given year (a 100-year flood or base flood),[3] and within this Special Flood Hazard Area, Flood Maps may delineate a floodway, the most hazardous portion of a riverine floodplain that carries the deepest and fastest flow during a flood. Communities who participate in the NFIP must adopt floodplain management regulations that, at a

---

[1] FEMA 480, National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials, pp. 2-6 (Feb. 2005) *at*: http://www.floods.org/ace-files/documentlibrary/CFM-Exam/FEMA_480_Complete.pdf.

[2] FEMA "has mapped more than 100 million acres of flood hazard areas nationwide and designated some six million acres of floodways along 40,000 stream and river miles." FEMA 480, National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials, pp. 2-10 (Feb. 2005) *at*: http://www.floods.org/acefiles/documentlibrary/CFMExam/FEMA_480_Complete.pdf

[3] A 100-year flood is a statistical term that indicates the probability of a certain flow occurring in a river. The term is misleading to the general public because the occurrence of a 100-year flood doesn't mean that it only occurs once every 100 years. It is based on the annual likelihood of the degree of flooding. A 100-year flood magnitude has a 1 percent chance - 1 in 100 - of being exceeded in any one year. During the span of a 30-year mortgage, a home located within a Special Flood Hazard Area has a 26% chance of being inundated by a 100-year flood. *See* USGS, 100-YEAR FLOOD – IT'S ALL ABOUT CHANCE (April 2010), at http://pubs.usgs.gov/gip/106/pdf/100-year-flood-handout-042610.pdf.

minimum, comply with the NFIP's standards,[4] and adopt FEMA's flood maps as the basis for regulating floodplain development. 44 C.F.R. § 60.1. The NFIP underwrites flood insurance coverage only in those communities that adopt and enforce floodplain regulations that meet or exceed NFIP criteria. *Id.* Floodplain management regulations are intended to discourage floodplain development and reduce flood damage. Two hundred and twenty-nine communities in South Carolina currently participate in the National Flood Insurance Program.

Amicus Association of State Floodplain Managers ("ASFPM") is a Wisconsin-based nonprofit corporation founded in 1976 with the mission to mitigate the losses, costs, and human suffering caused by flooding and to promote wise use of the natural and beneficial functions of floodplains. With more than 15,000 national and chapter members representing local, state, and federal government agencies, private consulting firms, academia, the insurance industry, and lenders, the ASFPM is the supporting organization of professionals involved in flood hazard identification, floodplain management, flood hazard mitigation, flood preparedness, and flood warning and recovery. ASFPM provides a variety of services and benefits to its members including professional development, industry news gathering, and commercial, governmental

[4] For example, the NFIP requires that all new residential construction and substantial improvements within a Special Flood Hazard Area must be elevated to or above the base flood elevation, and non-residential structures must either be elevated or designed to be watertight and flood-resistant. 44 C.F.R. § 60.3(c)(2). Within a floodway, "encroachments, including fill, new construction, substantial improvements, and other development" are prohibited unless "it can be demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in [base flood elevations] within the community." *Id.* at (d)(3). NFIP regulations do provide, however, a means by which development within a floodway could possibly proceed even if the development would cause a rise in base flood elevations, if the stringent requirements of 44 C.F.R. § 65.12 are met.

relations and advocacy services. ASFPM also administers the Certified Floodplain Manager Program, which has, since the year 2000, certified more than 8,000 floodplain management professionals throughout the United States as demonstrating advanced floodplain management expertise through passing a rigorous exam and meeting continuing education requirements across the disciplines that inform the professional practice of floodplain management, including hydrology, engineering, mapping, planning, and law. ASFPM currently has 153 members and 175 Certified Floodplain Managers in the State of South Carolina,[5] all working to reduce the risk of loss of life and property in future flood disasters.

ASFPM is the premier voice in floodplain management practice and policy throughout the nation. ASFPM leaders are frequently called upon to provide testimony, technical analysis and assistance to inform the public policy process regarding the effects of proposed legislation, regulation and administrative practice regarding the NFIP and other federal policies, programs, and practices in flood damage reduction, hazard mitigation, disaster recovery, levee safety, and reducing the costs of flood disasters. ASFPM's Amicus Brief seeks to aid this Court by putting the issues in proper context in light of the NFIP, public policy-making concerning levees and flood hazards, and the experience of the ASFPM with issues similar to those that Respondent faced in response to Appellant's efforts to construct intensive development on a floodplain.

[5] Among these certified floodplain managers are Charles Compton, Lexington County Planning Director, and Lisa Jones, former State Floodplain Coordinator, both of whom testified in this case for Respondent, as well as Harry Reed,.Richland County's Floodplain Coordinator during the time period relevant to this case.

This case raises the question whether the public can rely on traditional police power authority to prevent hazardous development in dangerously flood-prone areas without triggering takings liability. Consistent with general practice around the nation, Richland County, South Carolina, has identified floodways in its jurisdiction and sought through its regulatory authority to manage development activity in floodways to prevent harm, including loss of life and property, and reduce public costs of future flood events. The potential takings liability arising from floodplain regulation is a matter of significant public concern because flooding is the nation's most frequent and destructive natural hazard in terms of damage and economic loss. Between 1929 and 2003, urban floods in the United States caused an estimated $171 billion in property damage.[6]

In 1993, the Midwest was catastrophically impacted by what was then the most devastating flood in modern American history. Intense and continuous rainfall caused the Missouri and Mississippi Rivers to rise above the 100-year flood stage and in some areas nearly reach 500-year flood levels.[7] The Midwest Flood of 1993 flooded over 6.6 million acres in 419 counties.[8] Thirty-eight deaths were attributed directly to the flood.[9] More than 100,000 homes were damaged.[10] Farm crops in flooded areas were declared a total loss. The flood damaged miles of railroad track and closed 12 commercial

---

[6] University Corporation for Atmospheric Research et al., *Flood Damage in the United States, 1926-2003: A Reanalysis of National Weather Service Estimates*, *available at* http://www.flooddamagedata.org/national.html.

[7] Gerald E. Galloway, Jr., *Learning from the Mississippi Flood of 1993: Impacts, Management Issues, and Areas of Research*, p. 3 (U.S.-Italy Workshop on the Hydrometeorology, Impacts and Management of Extreme Floods, Nov. 1995) *available at* http://www.engr.colostate.edu/~jsalas/us-italy/papers/12galloway.pdf.

[8] *Id.* at p. 3.

[9] *Id.*

[10] *Id.* at p. 6.

airports.[11] Over 1,000 levees were overtopped or damaged during the flood.[12] Estimates of fiscal damages ranged from $12 billion to $16 billion.[13] Flood response and recovery operations cost more than $6 billion.[14]

In August 2005, the Gulf Coast experienced the costliest hurricane in United States history when Hurricane Katrina destroyed coastal towns in Mississippi and inundated 80% of the City of New Orleans, claiming more than 1,800 lives.[15] As the nation was still reeling from the profound misery that Katrina inflicted upon the City of New Orleans, Hurricane Rita struck the Gulf Coast, forcing one of the largest evacuations in United States history.[16] Rita's storm surge overtopped provisionally repaired levees in New Orleans, completely destroyed several inland parishes, and took 120 lives.[17] Combined, Hurricanes Katrina and Rita caused approximately $200 billion in economic losses, of which $21.9 billion related to insurance claims under the NFIP.[18]

This pattern of destruction has continued as the nation experienced even more unprecedented weather events. In 2008, severe, widespread flooding in the Midwest

---

[11] NOAA, THE GREAT FLOOD OF 1993, pp. 1-4 (Feb. 1994) *available at*: http://www.nws.noaa.gov/os/assessments/pdfs/93_Flood.pdf.

[12] *Id.* at p. 1-5.

[13] Gerald E. Galloway, Jr., *Learning from the Mississippi Flood of 1993: Impacts, Management Issues, and Areas of Research,* p. 3 (U.S.-Italy Workshop on the Hydrometeorology, Impacts and Management of Extreme Floods, Nov. 1995) *available at* http://www.engr.colostate.edu/~jsalas/us-italy/papers/12galloway.pdf.

[14] *Id.*

[15] Axel Graumann, Tamara Houston, Jay Lawrimore, David Levinson, Neal Lott, Sam McCown, Scott Stephens, and David Wuertz, HURRICANE KATRINA: A CLIMATOLOGICAL PERSPECTIVE, p. 1 (NOAA Oct. 2005) *available at*: http://www.ncdc.noaa.gov/oa/reports/tech-report-200501z.pdf; University of Rhode Island, *Hurricanes: Science and Society, Katrina Impacts, available at* http://www.hurricanescience.org/history/studies/katrinacase/impacts/.

[16] University of Rhode Island, *Hurricanes: Science and Society, 2005-Hurricane Rita, available at* http://www.hurricanescience.org/history/storms/2000s/rita/.

[17] *Id.*

[18] Rawle O. King, The National Flood Insurance Program: Status and Remaining Issues for Congress, p. 7 (Congressional Research Office 2013), *available at*: https://www.fas.org/sgp/crs/misc/R42850.pdf.

affected more than 11 million people in nine states as major rivers in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin overflowed their banks and levees. Among the worst hit was Cedar Rapids, Iowa, where heavy rainfall inundated 14% of the City, displacing over 24,000 people and damaging approximately 5,400 homes and 700 businesses.[19] Floodwaters from the Ohio River overwhelmed levees thirty miles away, resulting in an estimated $16.8 million in damages in the Town of Harrisburg, Illinois.[20] Then, in 2010, flash floods in Tennessee caused by record-breaking rainfall overwhelmed levees in Nashville, submerging downtown tourism facilities and a wastewater treatment plant.[21] The flood took 26 lives, and caused $26 billion in property damage.[22] In 2011, the nation experienced higher-than-normal rainfall and flooding at levels not seen since the 1930s in states along the lower Mississippi River Valley and the upper Midwest adjacent to the Missouri River, resulting in numerous levee failures.[23] In 2012, Hurricane Sandy, the second-costliest weather disaster in American history, took 159 lives, damaged or destroyed more than 650,000 homes and 300,000 businesses and caused $65 billion in damages in the Northeast.[24]

---

[19] USGS Professional Paper 1775, FLOODING IN THE UNITED STATES MIDWEST, 2008, p. 1 (2010), *available at* http://pubs.usgs.gov/pp/1775/pdf/pp1775.pdf.

[20] *Id.* at p. 13.

[21] William Harless and Joseph Berger, *Floods Prompt Evacuations in Nashville*, The New York Times, May 3, 2010, at A15, *available at*: http://www.nytimes.com/2010/05/04/us/04flood.html.

[22] *See* Michael Cass, *Record Rainfall Caused the Worst Flooding Along Cumberland River in Nashville Since 1937,* USA Today, May 1, 2013, *available at*: http://www.usatoday.com/story/news/nation/2013/05/01/nashville-flood-anniversary/2127879/.

[23] National Oceanic and Atmospheric Administration, National Weather Service, UNITED STATES FLOOD LOSS REPORT – WATER YEAR 2011, *available at* http://www.nws.noaa.gov/hic/summaries/WY2011.pdf.

[24] Doyle Rice and Alia E. Dastagir, *One Year After Sandy, 9 Devastating Facts*, USA Today, Oct. 29, 2013, *available at* http://www.usatoday.com/story/news/nation/2013/10/29/sandy-anniversary-facts-devastation/3305985/.

Levee failure is involved in approximately one-third of all flood disasters.[25] When levees fail, the results are often catastrophic. Consequently, the failure of a levee can expose anyone associated with that levee, including local governments and their risk pools, to potentially large liability losses. As a local example, in 1989, Mr. Manning recovered from the City of Columbia approximately $4 million in damages to his property (subsequently owned by Columbia Venture) caused by the City's failure to properly maintain its levee. R. 5308; *Manning v. Columbia*, 297 S.C. 451, 377 S.E.2d 335 (1989). In California, 3,000 plaintiffs sued the state when heavy rains in 1986 caused a levee to collapse on the Yuba River. *Paterno v. State*, 113 Cal. App. 4th 998, 1003 (2003). The levee had been constructed with un-compacted mining debris. *Id.* The state had not constructed the levee but had assumed responsibility for overseeing maintenance of the levee in 1953. The court held that "when a public entity operates a flood control system built by someone else, it accepts liability as if it had planned and built the system itself." *Id.* at 1003. The parties' settlement in this suit totaled approximately $464 million dollars.[26]

Both the 1993 Midwest Flood and the *Paterno* case sent shock waves through the levee and flood risk communities, prompting states and communities to rethink the benefits and costs of levees and to more thoroughly consider the full range of potential liabilities that could accompany a decision to accept responsibility for levee

---

[25] Interagency Levee Policy Review Committee, THE NATIONAL LEVEE CHALLENGE: LEVEES AND THE FEMA FLOOD MAP MODERNIZATION INITIATIVE, p. 11 (Sept. 2006) *available at*: http://www.fema.gov/media-library-data/20130726-1606-20490-2709/levee_report_final.pdf.

[26] Nancy Vogel, *A Wave of Relief after 1986 Flood*, L.A. Times, Aug. 15, 2005 at http://articles.latimes.com/2005/aug/15/local/me-flood15.

maintenance.[27] Communities more carefully considered whether to adopt a flood risk management approach that included levees in the first place.

The local community's role in the NFIP is of paramount importance. Local communities are at the forefront of a national policy directed at saving lives and property from devastation caused by flooding. As a participating community within the NFIP, the Respondent adopted regulations to prevent harm and manage its potential liabilities associated with floodways. The Special Referee correctly ruled that the Respondent's land use regulations at issue do not constitute a taking of property without just compensation.

ARGUMENTS

In this case, Columbia Venture challenges Richland County's floodplain management regulations as constituting a taking of property without just compensation under two theories – that the County's regulations are "functionally equivalent" to a *per se* physical taking or in the alternative, amount to a regulatory taking under *Penn Central Transp. v. New York City*, 438 U.S. 104 (1978).

A permanent physical occupation of private property is a *per se* taking. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982). A physical taking occurs only when the government physically occupies or invades private property, or a government regulation authorizes a third party to physically occupy or invade private

[27] *See The Midwest Floods of 1993: Flood Control and Floodplain Policy and Proposals*, Hearing before the Subcommittee on Water Resources and Environment of the Committee on Public Works and Transportation, U.S. House of Representatives (103rd Congress, 1st Session, Oct. 27, 1993) *available at* http://www.loc.gov/law/find/hearings/floods/floods103-57.pdf; National Committee on Levee Safety, DRAFT RECOMMENDATIONS FOR A NATIONAL LEVEE SAFETY PROGRAM REPORT, pp. 39-40 (Jan. 2009) *available at*: http://www.leveesafety.org/docs/NCLS-Recommendation-Report_012009_DRAFT.pdf.

property. *Id.* at 438. In the context of flooding, government action that causes permanent flooding of private property constitutes a physical appropriation of a flood easement requiring just compensation. *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1871); *Early v. S.C. Pub. Serv. Auth.*, 228 S.C. 392, 90 S.E.2d 472 (1955). Columbia Venture does not claim that the County has taken permanent action, such as constructing a dam or physically altering the landscape, causing intrusion of floodwater on its property. Rather, Columbia Venture tries to convince this Court that the County's floodplain management regulations physically appropriate its right to use its Property.

On the rare occasion that plaintiffs have attempted to frame local floodplain management ordinances as a physical taking, state courts have rejected such fanciful efforts. *See Krahl v. Nine Mile Creek Watershed Dist.*, 283 N.W.2d 538, 543 (Minn. 1979) (stating that floodplain management regulations do not effect a physical taking); *Maple Leaf Investors v. State*, 565 P.2d 1162, 1165 (Wash. 1977) (rejecting plaintiff's contention that enactment of floodway restrictions was the equivalent to the State acquiring a flowage easement over its property). More generally, the United States Supreme Court has drawn a clear line between physical appropriation of a property interest and regulatory limitations upon use of property, rebuffing attempts by plaintiffs to broaden the *Loretto* rule. *Brown v. Legal Foundation*, 538 U.S. 216, 234 (2003); *Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 323 (2002).

Columbia Venture also claims that the County's floodplain management regulations constitute a regulatory taking under *Penn Central Transp. v. New York City*, 438 U.S. 104 (1978). In *Penn Central*, the United States Supreme Court identified three

factors that it found particularly significant: "the economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations," as well as "the character of the governmental action." 438 U.S. 104, 124 (1978). The *Penn Central* factors must be weighed in relation to the plaintiff's whole parcel. *Id.* at 130-131; *Tahoe-Sierra*, 535 U.S. 302, 327 (2002).

Courts have rejected numerous regulatory takings challenges to the National Flood Insurance Program and floodplain management regulations. *See e.g. Adolph v. FEMA*, 854 F.2d 732 (5th Cir. 1988); *Texas Landowners Rights Assoc. v. Harris*, 453 F. Supp. 1025 (D.D.C. 1978); *Gove v. Zoning Board of Appeals of Chatham*, 831 N.E.2d 865 (Mass. 2005); *First English Evangelical Lutheran Church v. County of L.A.*, 210 Cal. App. 3d 1353 (Cal. App. 2d Dist. 1989); *April v. City of Broken Arrow*, 775 P.2d 1347 (Okla. 1989); *Responsible Citizens in Opposition to the Flood Plain Ordinance v. City of Asheville*, 302 S.E.2d 204 (N.C. 1983); *Usdin v. State Dep't of Environmental Protection, Div. of Water Resources*, 414 A.2d 280 (N.J. Sup. Ct. 1980); *Maple Leaf Investors v. State*, 565 P.2d 1162 (Wash. 1977); *Turnpike Realty Co. v. Town of Dedham*, 284 N.E.2d 891 (Mass. 1972) *cert denied* 409 U.S. 1108 (1973).

I. RICHLAND COUNTY'S ADOPTION OF FEMA'S FLOOD MAPS, IN CONJUNCTION WITH THE COUNTY'S RESTRICTIVE FLOODWAY REGULATIONS, DOES NOT CONSTITUTE A PHYSICAL TAKING.

If the government, by direct action or authorization of third party action, permanently occupies private property, thereby destroying the owner's right to possession, use, and disposal of the property, a categorical taking has occurred requiring just compensation. *Loretto,* 458 U.S. 419, 426 (1982); *Sea Cabins on the Ocean IV Homeowners Ass'n v. City of N. Myrtle Beach*, 345 S.C. 418, 430, 548 S.E.2d 595, 601

(2001). This *per se* rule is "relatively narrow," serving as an occasional exception to the *Penn Central* analysis. *Lingle v. Chevron U.S.A. Inc.*, 528 U.S. 528, 538 (2005). "In contrast to regulatory takings, the magnitude of the intrusion, the economic impact on the property owner, and the importance of the government interest advanced are all immaterial" in a physical taking claim. Robert Meltz, *Litigating Takings: A Primer for the Perplexed*, 34 ECOLOGY L.Q. 307, 361 (2007). "Also in contrast to regulatory takings claims, there is no parcel-as-a-whole rule for permanent physical occupations: a permanent occupation of only a small part of a tract will be held a taking ...." *Id.*

Columbia Venture asserts that Richland County's floodplain management ordinances appropriated an easement on its Property permanently reserving Columbia Venture's floodway property "in an undeveloped state so that it will flood in the future."[28] CV Reply, p. 6. In so doing, Columbia Venture asks this Court to extend the reach of a *per se* physical taking to encompass regulations that limit what uses a property owner may make of his property. Columbia Venture flatly pronounces that "for the landowner, there is no functional distinction between government-caused flooding of one's property and a regulation which requires the landowner to permanently reserve the land in an undeveloped state, so that it will flood in the

[28] Columbia Venture raises *Nollan v. California Coastal Comm'n*, 483 U. S. 825 (1987), *Dolan* v. *City of Tigard*, 512 U. S. 374 (1994), and *Koontz v. St. Johns River Management District*, 133 S. Ct. 2586 (2013) concerning government exactions as part of its *per se* taking arguments, but Columbia Venture admits that its claim does not involve an exaction such that the actual test set out in these cases would apply here. CV Brief, p. 67. Under *Koontz*, a government that compels a property owner to transfer a property interest to the government as a condition to approval of a requested land use permit cannot escape just compensation. Recognizing that private land uses may impose costs on the public, the test for an exaction of a property interest is not the *per se* physical taking test, but rather, a test that allows the government to condition approval of a permit on the dedication of property to the public so long as there is a "nexus" and "rough proportionality" between the property that the government demands and the social costs of the applicant's proposal. *Koontz*, 133 S. Ct. 2586, 2595 (2013).

future." CV Reply, p. 6. The County's regulations limiting Columbia Venture's use of property within a floodway cannot, under any logical reasoning, be equated to a permanent right of the government to make use of Columbia Venture's property or require it to submit to third-party use of its property. The United States Supreme Court has made clear that a physical taking does not occur when a government regulation simply puts limits on the use a property owner might make of his land. *Brown*, 538 U.S. 216, 234 (2003); *Tahoe-Sierra*, 535 U.S. 302, 324 (2002); *Dolan*, 512 U.S. 374, 385 (1994); *see also Henry v. Jefferson County Comm'n*, 637 F.3d 269, 277 (4th Cir. 2011).

In its Reply, Columbia Venture seemingly tries to circumvent this black letter law by arguing a physical taking occurred through the County's enactment of floodplain management regulations that were more restrictive than the NFIP minimum standards. CV Reply, pp. 14-15. In other words, Columbia Venture asserts that a physical taking may occur by virtue of more restrictive regulations limiting land use, but not under less restrictive land use regulations. In arguing that there is somehow a continuum of severity that is relevant in a physical takings analysis, Columbia Venture has revealed just how deeply flawed its physical takings theory really is. Under *Loretto*, a permanent physical intrusion, however great or small, is a *per se* physical taking. *Loretto*, 458 U.S. 419, 430 (1982) (explaining that "permanent occupations of land ... are takings even if they occupy only relatively insubstantial amounts of space and do not seriously interfere with the landowner's use of the rest of his land."). There is no matter of degree under *Loretto*. At bottom, Columbia Venture is trying unsuccessfully to masquerade a regulatory taking claim under *Penn Central* as a physical taking.

Columbia Venture's misguided and radical proposition seeks to convert land use regulations into physical takings. "Government 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, ... and [the United States Supreme Court] has accordingly recognized, in a wide variety of contexts, that government may execute laws or programs that adversely affect recognized economic values." *Penn Central*, 438 U.S. 104, 124-125 (1978). Treating land use regulations as *per se* physical takings "would transform government regulation into a luxury few governments could afford." *Tahoe-Sierra*, 535 U.S. 302, 324 (2002). The Special Referee unerringly rejected Columbia Venture's physical taking claim as contrary to well-established takings law.

II. THE SPECIAL REFEREE CORRECTLY RULED THAT NO COMPENSABLE REGULATORY TAKING UNDER *PENN CENTRAL* OCCURRED HERE.

"Under our system of government, one of the State's primary ways of preserving the public weal is restricting the uses individuals can make of their property." *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 491-492 (1987). It has long been recognized that property is held under an implied limitation upon use of property by the government's legitimate exercise of police power. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027 (1992). "A governmental entity is not required to permit a landowner to develop property to the full extent he might desire or be charged with an unconstitutional taking of the property." *MacDonald, Sommer & Frates v. County of Yolo*, 477 U.S. 340, 347 (1986); *see also Dunes West Golf Club, LLC v. Town of Mt. Pleasant*, 401 S.C. 280, 320, 737 S.E.2d 601, 622 (2013) (Property owners may not establish a taking simply by showing that they "have been denied the ability to exploit a

property interest that they heretofore had believed was available for development."). Columbia Venture cannot succeed on its regulatory taking claim because the important harm-preventing purpose of the County's floodplain management regulations and Columbia Venture's utter lack of reasonable investment-backed expectations weigh in the County's favor.

a. THE COUNTY'S FLOODPLAIN MANAGEMENT REGULATIONS SERVE TO PREVENT HARM.

Under the "character of the government action" element of *Penn Central*, consideration of the harm-preventing nature of floodplain management ordinances is entirely appropriate. *See Rose Acre Farms, Inc. v. United States*, 559 F.3d 1260, 1281 (Fed. Cir. 2009) *cert denied* 559 U.S. 935 (2010) ("There is little doubt that it is appropriate to consider the harm-preventing purpose of a regulation in the context of the character prong of a *Penn Central* analysis."). Noticeably absent from Columbia Venture's Briefs is any acknowledgement that its proposed development on a floodplain behind levees would have exposed thousands of people to the inevitable threat of flooding. This case cannot be viewed in isolation from the dangers of floods, and the obligation of local governments to protect their residents from harm.

As noted above, flooding is the most frequent severe weather threat and the costliest natural disaster facing the United States. Floods have the greatest damage potential[29] of all natural disasters and affect the greatest number of people. For

[29] Between 1929 and 2003, urban floods in the United States caused an estimated $171 billion in property damage. University Corporation for Atmospheric Research et al., *Flood Damage in the United States, 1926-2003: A Reanalysis of National Weather Service Estimates, available at* http://www.flooddamagedata.org/national.html. From fiscal year 1992 through fiscal year 2002, about 900 lives were lost in the United States due to flooding and flood damages totaled about $55 billion. U.S. General Accounting Office, Testimony before the Subcommittee on Economic Policy, Committee on

example, the 1993 Midwest Flood affected nine Midwestern states and generated the highest flood crests ever recorded at measuring stations on the region's rivers.[30] This catastrophic flood caused 38 deaths, as well as extensive damage to property and agriculture; required the evacuation of tens of thousands of people; and created large-scale disruptions in transportation, business, and water and sewer services.[31] The President declared 505 counties to be federal disaster areas, and estimates of the damage reached as high as $16 billion.[32] Flood losses in the United States have continued to rise, claiming lives, damaging property, and disrupting regional economies, costing jobs and economic productivity.

Richland County's Floodplain/Floodway Overlay Zoning District was enacted with the express intent of reducing or preventing "loss of life and property," "disruption of commerce and governmental services," and "extraordinary public expenditures for flood protection and relief," by "restricting or prohibiting uses which are dangerous to health, safety or property in times of flood" ... and by controlling filling, grading, mineral extraction, placing of obstructions within flood channels and other activities, uses or characteristics of uses which may increase flood damage." R. 3645, at § 25-73.2. Towards this end, the Floodplain/Floodway Overlay Zoning District contained a provision governing the following actions within a floodway: 1) filling of floodway areas, 2) dumping of salvaged or scrap material, or 3) placing material or other obstruction.

Banking, Housing and Urban Affairs, U.S. Senate: NATIONAL FLOOD INSURANCE PROGRAM: ACTIONS TO PREVENT REPETITIVE LOSS PROPERTIES, p. 1 (Mar. 2004) *available at*: http://www.gao.gov/products/GAO-04-401T.

[30] Interagency Floodplain Management Task Force, SHARING THE CHALLENGE: FLOODPLAIN MANAGEMENT INTO THE 21ST CENTURY, pp. 8-20 (June 1994) *available at*: http://www.floods.org/PDF/Sharing_the_Challenge.pdf.

[31] *Id.* at p. 8.

[32] *Id.* at pp. 15, 22.

These activities were prohibited within a floodway if they were done "in such a manner as to impede free flow of water during a time of flood or in such a manner that the elevation of floodwaters will be increased." R. 3647 at § 26-73.4(2). Richland County interpreted this provision as prohibiting most any construction within a floodway.[33] Floodways are the most hazardous areas during a flood. Prohibiting encroachments within a floodway serves to prevent harm.

Additionally, the County's Storm Drainage and Flood Protection Ordinance was intended to "protect the general health, safety and welfare of the people" by providing "proper drainage channels, clear of obstruction, for stormwater runoff; ... control[ling] pollution of streams and drainage channels by urban storm water runoff; and ... prevent[ing] encroachment into natural drainage channels by buildings or other land improvements." R. 3578 at § 8-50. This ordinance contained a provision regarding floodways, stating in relevant part that "no levees, dikes, fill materials, structures or obstructions that will impede the free flow of water during times of flood will be

[33] Columbia Venture raises, for the first time, that the Floodplain/Floodway Overlay Zoning District allowed construction in a floodway by virtue of another provision, § 26-73.6(1), which required review by the County Engineer of "Filling in – FW areas in connection with permissible uses or as a use in itself." Because Columbia Venture did not raise this point below, Richland County was never given the opportunity to explain this provision. The issue in this case was whether the County's ordinance section that prohibited filling or other obstructions within a floodway in such a manner that blocked conveyance of floodwaters would prohibit construction of an enlarged levee. The separate "filling in" provision that Columbia Venture refers to does not negate the County's regulation prohibiting fill or other obstructions within the floodway that impedes conveyance of floodwater. Within a floodway, it is possible to fill a hole in the ground or other topographical depression and not impede floodwaters. As another example, filling may occur in what is called the conveyance shadow of an existing non-conforming building such that the fill does not impede floodwaters. In this situation, floodwater is already flowing around a larger obstruction so the addition of fill within the conveyance shadow would not change existing flood flow. However, in a floodway, use of fill cannot be used to raise the ground elevation in order to remove the floodway designation from a Flood Map. 44 C.F.R. § 65.5(a). The point here is that the issue of filling in a floodway is more nuanced than Columbia Venture makes it out to be. In our review of the testimony in this case, we do not see that Columbia Venture asked questions about section 26-73.6(1) to any witnesses at trial, which would have elicited the fact that filling in some limited circumstances not relevant to this case would have been permissible.

permitted in the regulatory floodway."[34] R. 3583 at § 8-62(h). Since 1990, the County Engineer had received and approved only three applications for projects within a floodway, all of which were boat ramps or docks. R. 3176. The County Engineer had interpreted the provision to allow construction in a floodway so long as FEMA's minimum standard for floodway encroachments was met. R. 1875, lines 9-25. FEMA's restudy initiated in 1998 prompted a closer look at this provision. FEMA, the Richland County Attorney, and even Columbia Venture's engineer, understood the provision to be something different and more restrictive than FEMA's standard. R. 3110; R. 1913, line 5 – 1914, line 11; R. 2400, line 21 – 2401, line 16; R. 2407, lines 3-8.

In 2001, Richland County Council had pending before it an ordinance substantially revising its Storm Drainage Ordinance to comply with new obligations to regulate pollutants contained in stormwater runoff. R. 4249-4276. Like the Storm Drainage Ordinance, this ordinance's purpose was to "protect the general health, safety and welfare of the people," provide "proper drainage channels, clear of obstruction, for stormwater runoff," and ... "prevent encroachment into natural drainage channels by buildings or other land improvements," as well as to "prevent damages to the property of adjacent landowners." R. 4249, § 8-1. It had the same floodway restriction found in

[34] Under Richland County's ordinances, a levee located in a Special Flood Hazard Area outside a floodway could be constructed or improved. However, if a property owner was constructing or improving a levee within a Special Flood Hazard Area, the NFIP would still require that the property owner find a willing community to assume ultimate responsibility for the maintenance of the levee before FEMA would recognize the levee as providing adequate flood protection on Flood Maps. If no government sponsor is found, a levee could be constructed within a Special Flood Hazard Area; but the levee would be privately owned and maintained (thus subjecting the private owner to liability) and the flood maps would still show the floodplain behind the levee as within a Special Flood Hazard Area. Consequently, structures behind the un-accredited levee must be elevated above the base flood elevation and comply with other building standards designed to reduce flood damage.

the County's existing Storm Drainage Ordinance. R. 4265 at § 8-26(h). By this time, attorneys representing the County had provided a legal opinion to County Council concluding as a matter of statutory construction that the word "impede" should not be interpreted to mean the same as FEMA's minimum standard, and as properly interpreted, the County's floodway regulation was more restrictive than FEMA's minimum standard. R. 5360-5366. As amended in 2001, the County's ordinance adopted the more restrictive "impede" standard as the general rule that applied countywide. R. 4265 at § 8-26(h). The "impede" standard had the effect of preventing future encroachments upon property located within a floodway that would impede conveyance of floodwaters. Because floodways are the most hazardous areas during a flood, prohibiting encroachments within a floodway serves to prevent harm not only to property within a floodway, but to other properties that would see increased flood levels due to the encroachment blocking flood flows.

Columbia Venture argues that the exceptions to the general rule that the ordinance carved out for the City of Columbia and Heathwood Hall Episcopal School negate the harm preventing purpose of the ordinance. Both the City's wastewater treatment plant and Heathwood Hall's school facilities were legacy structures built before the County joined the NFIP. R. 4889-4891; R. 1383, lines 11-13. These excepted uses were subject to the NFIP's minimum floodway encroachment standard. Pursuant to 44 C.F.R. § 60.6(b)(1), communities cannot create exceptions within their floodplain management ordinances that fall below the NFIP's minimum standards unless reviewed and approved by FEMA. Here, Richland County's excepted uses were required to meet

the floodway encroachment standard set forth in 44 C.F.R. § 60.3(d)(3). So long as the NFIP's minimum standards are met, communities have the latitude to craft their floodplain management ordinances to address unique circumstances or hardships. An exception requiring a particular land use to comply with the NFIP standards within 44 C.F.R. § 60.3 serves to prevent harm. NFIP-based floodplain management regulations help prevent more than $1 billion in flood damages annually.[35]

Columbia Venture claims that the County "ignores the simple and obvious fact that the best way to prevent harm and to protect existing and future assets is to allow for levee upgrade and certification." CV Reply, p. 40. While levees have their place in the overall scheme of flood protection strategies when properly located, constructed, managed and maintained, Columbia Venture's argument turns a blind eye to widely accepted recognition that levees "only reduce the risk to individuals and structures behind them; they do not eliminate the risk."[36] Levees present a double-edged sword – on one hand, levees reduce flood risks, but levees also carry a significant and potentially catastrophic residual risk when they fail, causing flood damage more severe than a natural flood.[37]

---

[35] FEMA 480, National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials, p. 5-4 (Feb. 2005) *available at*: http://www.floods.org/ace-files/documentlibrary/CFM-Exam/FEMA_480_Complete.pdf.

[36] Interagency Levee Policy Review Committee, THE NATIONAL LEVEE CHALLENGE: LEVEES AND THE FEMA FLOOD MAP MODERNIZATION INITIATIVE, p. 24 (Sept. 2006) *available at*: http://www.fema.gov/media-library-data/20130726-1606-20490-2709/levee_report_final.pdf.

[37] *See* ASFPM White Paper, LEVEES: THE DOUBLE-EDGED SWORD (2007), *available at*: http://www.floods.org/PDF/ASFPM_Levee_Policy_Challenges_White_Paper_021907.pdf.

The Midwest Flood of 1993 prompted a national discussion about floodplain management, including the inherent risks of levees.[38] This flood caused overtopping and failure of over 1,000 levees. Although only a few of these levees were accredited by FEMA as providing protection against a 100-year flood, several levee systems protecting urban areas came dangerously close to failure. The most costly levee failure during the 1993 Midwest Flood was the Monarch-Chesterfield Levee at Chesterfield, Missouri.[39] The levee was an agricultural levee that had been upgraded and accredited by FEMA as providing protection from a 100-year flood.[40] The levee failed during the 1993 Midwest Flood causing extensive damage to industrial and commercial development that had occurred since the levee was accredited.[41] More than $13 million in flood insurance claims were paid just from this single levee failure.[42]

In 1994, the White House commissioned a report from the federal Interagency Floodplain Management Review Committee, led by the esteemed engineer and flood expert Gerald E. Galloway,[43] to identify the major causes of the 1993 Midwest Flood and evaluate the effectiveness of existing floodplain management programs. The report, entitled *Sharing the Challenge: Floodplain Management into the 21st Century*, called attention to the fact that levees may be designed to be tall and strong enough to

---

[38] *See* Interagency Floodplain Management Task Force, SHARING THE CHALLENGE: FLOODPLAIN MANAGEMENT INTO THE 21ST CENTURY, pp. 61, 113 (1994) *available at*: http://www.floods.org/PDF/Sharing_the_Challenge.pdf.

[39] Interagency Levee Policy Review Committee, THE NATIONAL LEVEE CHALLENGE: LEVEES AND THE FEMA FLOOD MAP MODERNIZATION INITIATIVE, p. 13 (Sept. 2006) *available at*: http://www.fema.gov/media-library-data/20130726-1606-20490-2709/levee_report_final.pdf.

[40] *Id.*

[41] *Id.*

[42] *Id.*

[43] At Richland County's invitation, Dr. Galloway traveled to Columbia to speak at a public forum on November 13, 2000 concerning floodplain management, including the results of his report. R. 5312-5357.

protect against a 100-year flood based upon flood height calculations when built; however, the calculated height of a 100-year flood will increase over time. Climate change has and likely will continue to bring more frequent and severe storms and changes in precipitation patterns. Expansion of urban growth anywhere in the watershed increases impervious surfaces thus causing swifter velocities of stormwater draining into rivers, which translates into higher flood elevations. Poorly sited levees are pre-disposed to repeated failure. The report cautioned against the Nation's over-reliance on levees and other structural flood control works, and recommended greater use of nonstructural floodplain management tools such as land use and building codes to reduce flood damage. The report recommended a national policy of discouraging new development in floodplains to keep people out of harm's way.

Levee construction has the effect of attracting new development behind the levee, lulling people who live and work behind a levee into a false sense of security.[44] When a levee does fail, those people living behind it are generally unprepared and caught off-guard, which leads to greater loss of life. Further, flood damages in areas located behind levees often exceed that experienced in areas without levees because structures built behind accredited levees are not required to be elevated or otherwise

[44] *See* Debbie M. Chizewer and A. Dan Tarlock, *Article and Essay: New Challenges for Urban Areas Facing Flood Risks*, 40 FORDHAM URB. L.J. 1739, 1744-1745 (Oct. 2013) ("The country's investment in levees, dams and floodways have prevented damage, but they also have had a perverse effect: structural flood plain protection encourages more settlement, which in turn increases the number of people and property impacted when a flood occurs. The result is a classic moral hazard problem. A moral hazard is a socially undesirable, often inefficient, behavior encouraged by the expectation that it will not be punished and often will be rewarded. The moral hazard problem is especially acute in flood prone areas where the existence of levees often leads to an illusionary sense of safety for flood plain residents.").

flood-proofed.[45] 44 C.F.R. § 65.10(a). As a result, when a levee fails, these structures experience greater damage. Furthermore, once overtopped, a levee tends to aggravate and prolong inundation beyond what it would have been without the levee.[46] This is so because a breached levee amplifies the hydraulics of floodwater, causing floodwater to inundate property at greater velocities and depths than areas where floodwater is unconstrained. Depending upon topography, floodwaters breaching a levee can flood areas behind a levee up to twenty feet in a matter of minutes.[47] Floods of less than a levee's design can damage and undermine the integrity of the levee, causing it to fail. Even if a levee holds during a flood event, flooding behind the levee can occur due to heavy seepage through and under the levees and heavy flows from streams draining areas behind the levees. A levee can impound floodwaters, preventing them from returning to the river channel, thus compounding property damage.

Mr. Charles Compton, the Lexington County Planning Director at the time, testified that Columbia Venture's proposed levee upgrades created "a scary image for Lexington County property owners" because of the prospect that improved levees in Richland County would cause greater flooding in Lexington County. R. 2812-2813. Levees change the behavior of floodwaters in a flood event, sending flows to areas that

---

[45] *See* Bryan Martindale and Paul Osman, Why the Concerns with Levees? They're Safe, Right?, Ill. Assoc. for Floodplain and Stormwater Management (2007) *available at* http://www.illinoisfloods.org/documents/IAFSM_Levee%20Article.pdf.

[46] *See* Senate Comm. on Banking & Currency, 89th Cong., 2d Sess., INSURANCE AND OTHER PROGRAMS FOR FINANCIAL ASSISTANCE TO FLOOD VICTIMS IX (Comm. Print 1966), at 22 ("Efforts at control may, in some cases, in the end produce worse results than they were intended to cure. A levee to confine all floods would be prohibitively costly. A feasible levee can confine floods of limited magnitudes, but every so often a really big one will top it. Once topped, a levee tends to aggravate and prolong inundation beyond what it would have been without the levee.").

[47] Interagency Levee Policy Review Committee, The National Levee Challenge: Levees and the FEMA Flood Map Modernization Initiative, p. 3 (Sept. 2006) *available at*: http://www.fema.gov/media-library-data/20130726-1606-20490-2709/levee_report_final.pdf.

would not otherwise flood, including to the opposite bank. By walling off large sections of the floodplain, levees give rivers much less room to spread out horizontally. A levee's confining effect pressures the floodwater to rise higher than it otherwise would, resulting in higher flows and greater velocities to the opposite bank and throughout the floodplain than it would experience prior to levee construction or enlargement.[48] In 2001, Columbia Venture's engineers conducted a preliminary analysis of whether a levee upgrade would cause base flood elevations to rise. R. 5453-5495. Their preliminary analysis found that improving the levee would increase base flood elevations upstream from the levee and on the other side of the Congaree River in Lexington County, on lands not owned by Columbia Venture. R. 5466, 5469-5470. Mr. Compton's concerns turned out to be well founded.[49]

b. COLUMBIA VENTURE'S ACCOUNT OF ITS PRE-PURCHASE EXPECTATIONS, EVEN IF ACCEPTED BY THE SPECIAL REFEREE, IS NONETHELESS UNREASONABLE.

For government regulation to constitute a taking, the property owner must objectively demonstrate an interference with reasonable investment-backed expectations. *Mehaffy v. United States*, 102 Fed. Cl. 755, 765 (Fed. Cl. 2012) *affirmed* 2012 U.S. App. LEXIS 25178 (Fed. Cir. 2012) *cert denied* 134 S. Ct. 897 (2014); *Dunes West*, 401 S.C. 280, 320, 737 S.E.2d 601, 622 (2013). A reasonable investment-backed

---

[48] *See* Anne Jefferson, *Levees and the Illusion of Flood Control*, SCIENTIFIC AMERICAN, May 20, 2011 *available at*: http://blogs.scientificamerican.com/guest-blog/2011/05/20/levees-and-the-illusion-of-flood-control-explainer/#respond.

[49] Columbia Venture attempts to discount Mr. Compton's concerns by bringing forward a resolution adopted by Lexington County Council requesting that FEMA base its determination of the Congaree River floodway upon FEMA's higher base flood elevations for the Lexington side of the Congaree River. CV Reply, pp. 42-43. Columbia Venture does not adequately explain how this resolution, which did not even mention flood risk, shows that Mr. Compton's concerns were resolved. Further, Columbia Venture fails to mention that FEMA rejected Lexington's request because granting such a request could exacerbate flooding. R. 5381-5385.

expectation must be more than a unilateral expectation or abstract need. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1005 (1984). Property owners may not establish a taking simply by showing that they "have been denied the ability to exploit a property interest that they heretofore had believed was available for development." *Dunes West*, at 321, 623. Recovery under a takings analysis is limited to property owners who can demonstrate reliance on a regulatory scheme that would allow their development plans to proceed unhindered. *Norman v. United States*, 429 F.3d 1081, 1093 (Fed. Cir. 2005); *Westside Quik Shop, Inc. v. Stewart*, 341 S.C. 297, 306, 534 S.E.2d 270, 275 (2000). When analyzing a property owner's expectations, "the party's subjective expectations for the property should not be considered." *Mehaffy*, 102 Fed. Cl. 755, 765 (Fed. Cl. 2012) *affirmed* 2012 U.S. App. LEXIS 25178 (Fed. Cir. 2012) *cert denied* 134 S. Ct. 897 (2014).

Columbia Venture insists that its plan of action prior to and immediately after purchase of the property was to 1) commence work to upgrade and certify the levees; 2) thereafter, apply to FEMA for a Letter of Map Revision ("LOMR");[50] the issuance of which would amend the flood map to remove the floodway and floodplain designations from behind the property; and then 3) begin construction of commercial and residential development built flat on the ground. CV Reply, pp. 27-28, citing to R. 3499-3500; 3668-

[50] A LOMR is FEMA's modification to an effective Flood Insurance Rate Map (FIRM) ...." 44 C.F.R. § 72.2. Here, Columbia Venture wanted FEMA to approve an application for a LOMR to remove the special flood hazard areas behind the levee based upon an improved levee that met the requirements of 44 C.F.R. § 65.10. We note that the parties in this case refer to a levee approved under 44 C.F.R. § 65.10 as a "certified" levee. There is nothing wrong with describing 44 C.F.R. § 65.10 as such; however, within the flood risk industry, a levee that FEMA finds to meet the requirements of 44 C.F.R. § 65.10 is more commonly described as "accredited" in order to avoid any confusion between FEMA's role under this regulation and the requirement that a registered engineer certify that the levee is designed "with sound engineering practices to provide protection from the base flood." 44 C.F.R. § 65.10(e); 44 C.F.R. § 65.2(b). We use the term "accredit" within this Brief.

3669; 3632-3634. The Special Referee found that Columbia Venture examined multiple strategies prior to purchase, but Columbia Venture ultimately decided to first seek to convince FEMA to issue a Flood Map without a floodway on its Property, followed by submittal of a Conditional Letter of Map Revision for levee accreditation, and if approved by FEMA, then proceed with levee construction. The evidence supports the Special Referee's finding, and ASFPM does not wish to consume this Court's time reiterating the solid evidentiary basis for the Special Referee's finding. Instead, we wish to walk this Court through Columbia Venture's claim that its pre-purchase expectation was to immediately undertake levee construction, and explain that, even if this route was Columbia Venture's preferred initial plan, it was unreasonable.

Columbia Venture conducted its pre-purchase due diligence on a very tight deadline with very little if any engineering analysis of the Manning levee. R. 1294; R. 1469, lines 8-17; R. 1661, lines 21-24; R. 2984, Tillotson Dep. p. 47, lines 11-25; R. 2984-2985, Tillotson Dep. pp. 48-53. Columbia Venture knew that FEMA's study was ongoing and, like most developers, wanted to find the quickest, least expensive path forward to avoid uncertainty. R. 1623-1626; R. 1413, line 7 – 1414, line 22; R. 1457, line 19 – 1458, line 14; R. 5148. On January 20, 1999, Lockwood Greene sought confirmation from the South Carolina Department of Natural Resources ("SCDNR") regarding the feasibility a particular plan of action. R. 3121-3124. That plan envisioned that, while FEMA continued to work on a new flood hazard study and flood maps, Columbia Venture would immediately obtain permits from Richland County to upgrade its levee to meet FEMA's levee accreditation requirements using the 1994/1995 flood maps for

permitting purposes, not the June 5, 1998 preliminary revised flood maps that FEMA released prior to Columbia Venture's purchase of the property. Once this work was completed, it would submit a request for a LOMR to revise the 1994/1995 flood map by removing the floodplain designations on the Property. R. 3122-3123. This revision of the 1995 map would also preempt any designation of an enlarged floodway on the Property as part of FEMA's ongoing flood hazard study. *Id.* SCDNR asked FEMA to respond to this plan. R. 3121. In the meantime, Columbia Venture asked Richland County Council to accept responsibility for operation and maintenance of the improved levee. Under 44 C.F.R. § 65.10, FEMA will not revise a Flood Map to remove special flood hazard areas behind a levee unless a government sponsor commits to assuming complete responsibility for proper levee operation and maintenance.

Columbia Venture's plan was unreasonable for three reasons: 1) it ignored regulatory hurdles as the County level, 2) FEMA's response did not give Columbia Venture the answer it was hoping for, and 3) Richland County's Resolution did not give Columbia Venture any certainty that the County would go along with the plan.

1) Columbia Venture's plan ignored regulatory hurdles at the County level.

Columbia Venture's plan contemplated that it would first "upgrade the levee system to meet structural requirements set out in 44 C.F.R. § 65.10." The levee design standard required under 44 C.F.R. § 65.10(b) is a design that provides protection against a 100-year flood plus three feet of freeboard. R. 1739, line 7 – 1740, line 5. Lockwood Greene's pre-purchase cost estimates for levee improvements contemplated construction to meet this 100-year flood design standard. R. 3501-3514. However, the

County's Storm Drainage Ordinance required that levees intended to protect residential development or commercial development not flood-proofed must be designed to protect against a 500-year flood plus three feet of freeboard, which would require construction of a larger levee than a levee designed to withstand a 100-year flood.[51] R. 3583 at § 8-62(g). It was unreasonable for Columbia Venture to expect that it could obtain a construction permit from Richland County to improve the levee to a design standard that would have violated the County's levee standard. *See Golden Pac. Bancorp v. United States*, 15 F.3d 1066, 1074 (Fed. Cir. 1994) (holding that plaintiff could not have reasonably expected the government to fail to enforce applicable regulations).

Further, Columbia Venture expressly stated in its letter outlining its plan that the enlarged floodway shown on the preliminary revised flood map of June 5, 1998 "limit[ed] expansion of the existing development and prevent[ed] further development within the levee system." R. 3632-3634. To avoid this problem, it sought to construct upgraded levees under the 1994/1995 flood maps before FEMA finalized any new flood map showing a floodway on its property. Under the 1994/1995 maps, the levees were outside of the floodway, meaning that Columbia Venture would not be required to

[51] *See* 44 C.F.R. § 65.10(a) ("For the purposes of the NFIP, FEMA will only recognize in its flood hazard and risk mapping effort those levee systems that meet, and continue to meet, minimum design, operation and maintenance standards ...."). (emphasis added). Levees constructed to protect urban areas are typically designed to withstand floods of greater magnitude than a 100-year flood. Columbia Venture's geotechnical engineer testified that improving the levee to meet a 500-year flood would have required raising the height of the levee by four feet above a 100-year design and adding 30%-50% more volume than a 100-year levee design. R. 1762, line 22 – 1763, line 13.

contend with Richland County's floodway restrictions.[52] R. 1204, line 19 – 1205, line 21.

The problem here for Columbia Venture was that the County was using the June 5, 1998 preliminary revised flood maps for permitting purposes. Under FEMA's Floodplain Management Bulletin 1-98, FEMA encourages communities, in certain circumstances applicable here, to use preliminary revised flood maps for local permitting purposes "to ensure that the health, safety, and property of their citizens are protected." R. 3137-3145. The June 5, 1998 preliminary revised flood maps put the levees within a floodway. With the levees within a floodway, the County's floodway regulations would apply. Prior to purchase, Columbia Venture knew that Richland County was using the June 5, 1998 preliminary revised flood maps for permitting purposes. R. 3108-3114; R. 2392, line 5 – 2400, line 20; R. 1645, lines 5-16. There is no evidence in this record showing that, prior to purchase, Columbia Venture even asked the County not to use the June 5, 1998 flood maps, much less obtained any assurance that the County would not use the June 5, 1998 maps.[53] To think that the County would take action that exposed its citizens to increased risk is not a reasonable expectation.

---

[52] *See also* the testimony of Columbia Venture's geotechnical engineer who, in describing plans for levee improvements prepared on May 2, 1999 after Columbia Venture purchased the property, explained how levee improvements would be done in relation to the floodway boundary being located at the riverside toe of the levee (meaning that the levee was not within a floodway). R. 1740, line 16 – 1752, line 22.

[53] When a Burroughs & Chapin representative was questioned at trial about how Columbia Venture intended to address the fact that Richland County was using the June 5, 1998 preliminary revised flood maps, he testified that: "Again, if they were going to be permitting things there, you know, to get a permit based on a map that was showing floodway all the way into the City of Columbia's industrial park, it would have been extremely difficult. So we needed to do things and address that in a manner that was twofold. One, we needed to do something that would allow us to get the permits, other than going through that type of process. You know, again, Richland County had the ability to – they had variances that were within their ordinance. We could do that. We could simply have them change the ordinance that they had. ... Or it would have been just simply straightforward, they can agree to give us a permit, at

2) *FEMA's response did not give Columbia Venture the answer it was hoping for.*

FEMA's response, dated 15 days before the closing date for purchase of the property, did not give Columbia Venture the answer they were looking for. R. 3125. Instead of addressing the specific question as to whether Columbia Venture could revise the 1994/1995 Flood Map (which had no floodway on the Manning Property) by undertaking levee construction while FEMA was in the process of developing new maps, FEMA's letter addressed the question of a map revision based upon the levee being located within a floodway. FEMA stated that, if the requirements of 44 C.F.R. § 65.10 and the County's floodplain management regulations were met, then "FEMA would revise the applicable FIRM to remove the Special Flood Hazard Area designation and floodway." (emphasis added). It went on to refer to 44 C.F.R. § 65.12, a NFIP regulation that applies only when construction would occur in a floodway. Under 44 C.F.R. § 65.12, Columbia Venture must apply to FEMA for conditional approval of levee construction prior to any construction taking place. 44 C.F.R. § 65.12. The application must also include the concurrence of the Chief Executive Officer of any other communities impacted by the proposed levee construction, including Lexington County. 44 C.F.R. § 65.12(a)(4). The only logical conclusion that could be drawn from FEMA's letter was that it believed or assumed that levee improvements should or would occur after FEMA issued a final flood map of the Congaree River showing an enlarged floodway on the

---

which time, these types of things would be immaterial anyway, because we would have a levee upgraded to a certified standard." R. 1492, line 7 – 1493, line 11.

Manning Property; thus eliminating any expectation Columbia Venture may have had to quickly upgrade the levee before FEMA finished its flood study. [54]

Columbia Venture's answer to this dilemma is to point to testimony from a Burroughs & Chapin representative stating that he knew, prior to purchase, that the County Engineer interpreted the "no-impede" language within the floodway regulation of County's Storm Drainage Ordinance to mean the same as FEMA's "no-rise" standard for construction within a floodway. R. 1489, line 13 – 1491, line 3. In other words, Columbia Venture argues that FEMA's letter did not dash its plan because the levees could still be improved once FEMA issued a final map showing a floodway on its property, so long as Columbia Venture could demonstrate that levee improvements would not cause a rise in base flood elevations. Assuming for the purposes of this argument that reliance on the County Engineer's interpretation was reasonable, it would be vital for Columbia Venture to know, prior to purchase, whether it was possible to upgrade the levees without causing a rise in base flood elevations anywhere in the community.

Preparing a "no-rise" certification for a project of this magnitude is a complex undertaking. To prepare this certification, Columbia Venture would have needed detailed engineering plans and surveys showing the new dimensions of an upgraded

[54] This conclusion is reinforced by FEMA's prior letter to the County dated July 28, 1998 in which it stated that, after FEMA finalizes a new flood map for the Congaree River, then this map "may be revised at any time should the community provide data showing that changes have occurred that affect the flood hazards depicted on the maps, such as completion of flood control works." R. 3117-3118. Furthermore, FEMA could not have meant to give Columbia Venture the green light to seek a revision of the June 5, 1998 preliminary revised flood map because a LOMR can only revise an "effective" Flood Map. 44 C.F.R. § 72.2. An "effective" flood map is a map that FEMA has officially issued as final determination through publication in the Federal Register. A preliminary revised flood map is not a final map and therefore, not an "effective" flood map.

levee, and hydrological and hydraulic modeling conducted by a registered engineer showing whether miles of enlarged levees would increase the base flood elevations reflected in FEMA's new flood hazard study as finally determined. Columbia Venture had none of this data or modeling prior to purchase. Thus, prior to purchase, Columbia Venture had no way of knowing whether an upgrade of its levee could be accomplished without causing a rise in base flood elevations. Mere conjecture by Columbia Venture that a "no-rise" certification could be done is not a reasonable investment-backed expectation. *See Warren Trust & Marietta Trust v. United States*, 107 Fed. Cl. 533, 570 (Fed. Cl. 2012) (stating that conjecture or wishful thinking cannot rise to the level of a reasonable investment-backed expectation).

Columbia Venture attempts to characterize a letter written by Lockwood Greene two days before Columbia Venture's purchase of the property as showing that "Lockwood Greene extensively studied the no-rise issues and opined prior to purchase that a no-rise could be shown." CV Reply, p. 30; R. 3501-3514. Lockwood Greene's letter was based solely upon a review of a preliminary revised Flood Insurance Study. Simply reviewing a preliminary revised Flood Insurance Study, or even a finalized Flood Insurance Study, does not come close to the level of analysis FEMA expects in determining whether proposed construction in a floodway would cause a rise in base flood elevations.[55]

In addition, a "no-rise" certification must evaluate whether proposed construction would increase base flood elevations anywhere in the Congaree River

[55] *See* FEMA's procedures for preparing a "no-rise" certification at http://www.aafmfloods.org/docs//No_Rise_Certificate_-_Letter_and_Checklist.pdf.

floodplain. Lockwood Greene reviewed a preliminary revised Flood Insurance Study that showed base flood elevations in Lexington County. Lockwood Greene's letter fails to consider base flood elevations in Richland County, which Lockwood Greene acknowledged were lower than those in Lexington County. *See* R. 3501-3514 (stating that June 5, 1998 preliminary study showed higher base flood elevations in Lexington County than the base flood elevations in Richland County). Furthermore, Lockwood Greene said nothing about whether a levee designed to the County's design standard would increase base flood elevations. Any reliance upon Lockwood Greene's guesswork based upon preliminary flood data without any modeling, especially when Columbia Venture's development plans could not be accomplished without knowing this information, is unreasonable because it is a subjective belief, not an objective, fact-based expectation. *Mehaffy*, 102 Fed. Cl. 755, 765 (Fed. Cl. 2012) *affirmed* 2012 U.S. App. LEXIS 25178 (Fed. Cir. 2012) *cert denied* 134 S. Ct. 897 (2014); *see also Forest Props. Inc. v. United States*, 177 F.3d 1360, 1367 (Fed. Cir. 1999) (stating that "hope is not enough to show a reasonable investment-backed expectation that might be protected by the *Takings Clause*").

3) Richland County's Resolution did not give Columbia Venture any certainty that the County would go along with the plan.

During this same pre-purchase time period, Lockwood Greene requested that the County accept responsibility for the operation and maintenance of an improved levee as required under 44 C.F.R. § 65.10. R. 5199-5207; 3499-5300. This request was forwarded to a County Council Committee for a recommendation, followed by formal action by the full County Council. The Council Committee recommended approval of

the request. R. 3326. However, the full County Council did not accept this recommendation. Instead, the County Council enacted a Resolution that, like the FEMA letter, did not provide the swift and certain solution that Columbia Venture was looking for. R. 3326-3327. The Resolution was crafted to give Richland County more time to consider whether acceptance of levee maintenance was prudent, and the leeway to walk away from any commitment if it ultimately chose to do so. R. 2715, line 24 – 2716, line 8; R. 2602, line 8 – 2607, line 15.

Given the very serious risk of catastrophic harm to people and property that floods cause, the even greater flood risks associated with levees, and the potential for significant legal liability when levees fail, Richland County officials had good reason to pause and think through Columbia Venture's request. In order for a levee to be recognized on a flood map as providing adequate protection against a 100-year flood, "all maintenance activities must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance...." 44 C.F.R. § 65.10(d). Communities consider multiple factors in deciding whether to "assume ultimate responsibility" for maintenance of a levee. These factors include the costs of levee maintenance over the expected lifetime of the levee, as well as whether to allow new development and redevelopment in leveed areas. Communities properly consider the potential legal liabilities that may accompany that "ultimate responsibility," including the risk of loss of life and property, requirements for emergency management planning associated with the levee, and the types of uses that would be appropriate for

leveed areas since those uses and occupants would be subject to catastrophic flows in the event of levee failure. Each community considers these factors in the broader context of alternatives to levee construction, development in their floodplains, and the degree of risk and cost that the community is willing to tolerate.

In this case, Columbia Venture wanted to improve existing agricultural levees so that it could build a massive residential and commercial development on the Congaree River floodplain, thus handing over to Richland County an exponentially greater risk of loss of life and property damage. Due to the lack of any certainty that the County would accept responsibility for the levee, Columbia Venture lacked any reasonable basis to believe that it could proceed directly to levee construction.

III. COLUMBIA VENTURE MISUNDERSTANDS THE NFIP AND MISSTATES CERTAIN FEDERAL AND LOCAL FLOODPLAIN MANAGEMENT REGULATIONS.

In its Briefs, Columbia Venture makes assertions about the NFIP that are incredibly ill-informed. In order to educate this Court, the ASFPM will briefly explain the errors in Columbia Venture's characterizations of certain aspects of the NFIP most relevant to this case.

a. Columbia Venture's characterization of the NFIP's intent and the effect of community withdrawal from the NFIP is deeply flawed.

Columbia Venture claims that "one obvious purpose of the NFIP is to empower local communities to exploit their resources in flood prone land by making flood insurance and loans from federally insured lending institutions available to residents of those areas." CV Reply, p. 14. Columbia Venture then goes on to conclude that "the irony is that if a local community wished to discourage building in a flood prone areas, it

could so do by simply electing not to participate in the NFIP, as no federally-based lending or other such resources would be available to such construction projects." *Id.* Columbia Venture's understanding of the NFIP is wrong for two major reasons.

First, the NFIP was not enacted for the purpose of empowering local governments to exploit floodplain property. Prior to the enactment of the NFIP, the national response to flood disasters was generally limited to constructing flood-control works such as dams and levees, and providing disaster relief to flood victims.[56] This approach did not reduce losses, nor did it discourage unwise development. The public generally could not buy flood coverage from private insurance companies, and building techniques to reduce flood damage were often overlooked. In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, Congress created the NFIP.[57] A stated purpose of the NFIP was to constrict development within floodplains, not to "exploit" development potential within floodplains. 42 U.S.C. § 4001(e)(1). The intent was to reduce future flood damage through community floodplain management ordinances, and provide for property owners a safety net against the financial devastation of flood losses through an affordable federally-subsidized insurance program.

Second, Columbia Venture's suggestion that communities can more effectively discourage floodplain development by withdrawing from the NFIP ignores the very real consequences to local economies that withdrawal from the NFIP would cause. If a

---

[56] FEMA 480, National Flood Insurance Program (NFIP) Floodplain Management Requirements: A Study Guide and Desk Reference for Local Officials, p. 2-3 (Feb. 2005) *available at*: http://www.floods.org/ace-files/documentlibrary/CFM-Exam/FEMA_480_Complete.pdf.

[57] *Id.*

community withdraws from the NFIP, flood insurance through the NFIP would be unavailable anywhere within the community.[58] The availability of flood insurance through the NFIP was intended in part to provide a critical safety net for those who owned or occupied structures built in floodplains before the NFIP was in effect,[59] and those structures built on property not originally designated as within a Special Flood Hazard Area but subsequently was remapped as within a Special Flood Hazard Area. Through no fault of their own, property owners in these two situations lack the flood protection that the NFIP's building standards provide. Withdrawal from the NFIP would leave these property owners in a vulnerable financial position when flood damage occurs. To compound the problem, non-participation in the NFIP means that residents are ineligible for federal disaster relief when a flood does occur. 44 C.F.R. § 206.110(k)(2). Non-participation would unfairly deny many people the ability to financially recover from a flood, thereby inflicting significant damage to the local economy.

b. Richland County's Stormwater Ordinance provided an opportunity for a variance from its floodway restriction.

The County's Brief states that its Stormwater Ordinance as amended in 2001 incorporated by reference FEMA's variance provision found at 44 C.F.R. § 60.6.[60] R.

---

[58] As a result of flash-flooding, flood damage can and does occur on property not located within a special flood hazard area. 25% of all flood insurance claims paid were from policies insuring properties outside the mapped special flood hazard area. NFIP, Resources: Flood Facts, at https://www.floodsmart.gov/floodsmart/pages/flood_facts.jsp.

[59] In riverine communities, these property owners are likely to be minority or low income people due to the fact that floodplain property is historically the least desirable and least expensive property on the market.

[60] When a community adopts floodplain management regulations within an ordinance like a storm drainage ordinance that is not dedicated exclusively to floodplain management, incorporating the NFIP variance provision, 44 C.F.R. § 60.6, by reference is not uncommon because a general variance provision

4265, § 8-26(i). Columbia Venture argues that 44 C.F.R. § 60.6 does not provide a variance procedure in which participating communities may grant variances to their floodplain management regulations, nor does it mandate that participating communities provide such a variance procedure. CV Reply, p. 46. Columbia Venture is mistaken. Part 60 of Title 44 of the Code of Federal Regulations sets forth minimum requirements for local floodplain management regulations that must be adopted by communities participating in the NFIP. 44 C.F.R. § 60.1(b). Included within Part 60 is a requirement that participating communities afford property owners the opportunity, in limited circumstances, to obtain a variance from floodplain management regulations. 44 C.F.R. § 60.6. Under 44 C.F.R. § 60.6(a), a "community, after examining the applicant's hardships, shall approve or disapprove a [variance] request." (emphasis added). This provision is properly understood as requiring participating communities to provide for variances so long as the limitations and criteria within 44 C.F.R. § 60.6 are followed.[61] Under 44 C.F.R. § 60.6(a)(3), Columbia Venture could have sought a variance from Richland County's "no-impede" floodway standard to allow for demonstration that its levee improvements would not cause a rise in flood elevations. Thus, FEMA's variance provision may be used to provide relief to a community's floodplain management

---

expressly contained within such an ordinance may not include the specific mandatory variance criteria found in 44 C.F.R. § 60.6, or cannot be reasonably reconciled with the criteria within 44 C.F.R. § 60.6. We note that the County's draft Stormwater Ordinance of 2001 initially contained a general variance provision, but it was deleted after consultation with legal counsel. R. 3211. In its place, Richland County relied on § 8-14 to incorporate by reference a state variance provision applicable to stormwater management requirements, and § 8-26(i) to incorporate by reference the floodplain management criteria found in 44 C.F.R. § 60.6. R. 4257, 4265.

[61] *See* SCDNR's *National Flood Insurance Program Community Floodplain Management Regulations Review Checklist*, in which a variance section is deemed to be a mandatory provision: http://www.dnr.sc.gov/flood/documents/Ordinance%20Checklist%20Landscape.pdf.

ordinances that are more restrictive than FEMA's minimum criteria, assuming that the variance criteria within 44 C.F.R. § 60.6 are met.

Columbia Venture argues that 44 C.F.R. § 60.6 prohibited the County from granting a variance from its restrictive floodway standard because doing so would violate the regulation's criteria that a variance cannot "conflict with existing local laws or ordinances." CV Reply, p. 46. The very nature of a variance is to allow a property owner to proceed with a particular use of property in a manner that ordinarily would conflict with the community's ordinances. More specifically, 44 C.F.R. § 60.6(a) allows variances from a community's floodplain management regulations. Under Columbia Venture's reading of 44 C.F.R. § 60.6(a)(3)(iii), no one could obtain a variance from a community's floodplain management regulations because the variance would conflict with those floodplain management regulations. Columbia Venture's interpretation is absurd, for it would render the entire notion of a variance under 44 C.F.R. § 60.6 as a nullity. *See Hodges v. Rainey*, 341 S.C. 79, 91, 533 S.E.2d 578, 584 (2000) ("However plain the ordinary meaning of the words used in a statute may be, the courts will reject that meaning when to accept it would lead to a result so plainly absurd that it could not possibly have been intended by the Legislature or would defeat the plain legislative intention."). The requirement under 44 C.F.R. § 60.6(a)(3)(iii) prohibits the grant of a variance that would conflict with ordinances other than floodplain management ordinances.

c. Richland County's more restrictive floodway standard did not violate 44 C.F.R. § 60.1.

Pursuant to 42 U.S.C. § 4102(c), FEMA is directed to develop land use criteria to encourage adoption of "adequate" land use measures to "constrict the development of land which is exposed to flood damage" and "guide the development of proposed construction away from locations ... threatened by floods ...." To accomplish these objectives, FEMA "shall make flood insurance available" in communities that have adopted adequate floodplain management regulations consistent with criteria developed by FEMA. *See* 42 U.S.C. § 4012(c); 42 U.S.C. § 4022(a). Part 60 of 44 C.F.R. sets forth the NFIP's standards for local floodplain management ordinances. These standards are the absolute minimum that participating communities must adopt in order to be eligible for flood insurance. 44 C.F.R. § 60.1(d). These standards were promulgated because they imposed a level of protection that was deemed politically acceptable and not too disruptive to desired economic development.[62] They do not address all potential hazards. For example, "the minimum NFIP standards do not prohibit diversion of floodwaters onto other properties, nor do they prevent the loss of

[62] *See* Howard C. Kunreuther *et al.*, MANAGING LARGE-SCALE RISKS IN A NEW ERA OF CATASTROPHES: INSURING, MITIGATING AND FINANCING RECOVERY FROM NATURAL DISASTERS IN THE UNITED STATES, pp. 288-289 (Wharton Risk Management & Decision Processes Center 2008) ("Local governments may be reluctant to take actions to mitigate natural hazards because community goals such as building housing and promoting economic development may be higher priorities than formulating mitigation regulations which may include more restrictive development regulations and more stringent building codes. Local communities may also encounter difficulties in implementing and maintaining mitigation-related policies due to cost concerns such as the expenses in hazard mapping, land-use planning and local ordinances to address natural hazard risks. Officials from the National Homebuilders Association told the GAO that the economic cost of mitigation should be considered because every $1,000 increase in median home prices can force about 240,000 homebuyers out of the market. Similarly, private property owners may be reluctant to pay for the additional cost of features that exceed local building codes, such as reinforced concrete walls and flood proofing materials."), *available at*: http://opim.wharton.upenn.edu/risk/library/Wharton_LargeScaleRisks_FullReport_2008.pdf.

channel conveyance and storage or increases in erosive velocities." Edward A. Thomas & Sam Riley Medlock, *Mitigating Misery: Land Use and Protection of Property Rights before the Next Big Flood*, 9 VT. J. ENVTL. L. 155, 161-162 (2008). "As a result, communities that manage floodplain development based solely on the minimum standards of the NFIP perform some valuable regulation, but do allow development to encroach and constrict the floodplains, subjecting property owners and downstream neighbors to greater flood frequency and severity than would result had the entire floodplains been left to convey flood waters." *Id.*

In recognition that the NFIP calls for "adequate" land use regulations, the NFIP regulations make clear that:

> Any community may exceed the minimum criteria under this part by adopting more comprehensive flood plain management regulations utilizing the standards such as contained in Subpart C of this part. In some instances, community officials may have access to information or knowledge of conditions that require, particularly for human safety, higher standards than the minimum criteria set forth in subpart A of this part. Therefore, any flood plain management regulations adopted by a State or community which are more restrictive than the criteria set forth in this part are encouraged and shall take precedence. 44 C.F.R. § 60.1(d).

Columbia Venture argues that Richland County's more restrictive floodway standard violates this provision because it was not enacted as part of an overall comprehensive management plan. CV Reply, p. 41. 44 C.F.R. § 60.1 does not limit communities to adoption of more restrictive standards that are only identified in the NFIP's comprehensive planning considerations. The regulation encourages <u>any</u> regulations that are more restrictive than the NFIP's minimum standards.

The NFIP's Community Rating System ("CRS") reflects such broad encouragement. The CRS is designed to provide financial incentives to communities to adopt maps and regulations or take other measures that exceed federal minimum standards. 42 U.S.C. § 4022(b). In exchange for a community's proactive efforts to reduce flood risk, policyholders can receive reduced flood insurance premiums for buildings in the community. As of May 2012, more than 1,200 communities participate in the CRS, including 41 in the State of South Carolina.[63]

States and local governments restrict development within a floodway because floodways are areas of greatest depth and velocity hazard and pose the greatest risk of loss of life and property. Because flood maps do not take into account future conditions such as increased impervious surfaces and increased severity of storm events brought about by climate change,[64] adoption of floodway development prohibitions has been considered a best practice for more than ten years, and is now strongly encouraged.[65]

---

[63] *See* FEMA, *CRS Communities by State*, (May 1, 2012), *available at* http://www.fema.gov/media-library-data/20130726-1830-25045-0453/crosstab_bystate_4may_2012.pdf.

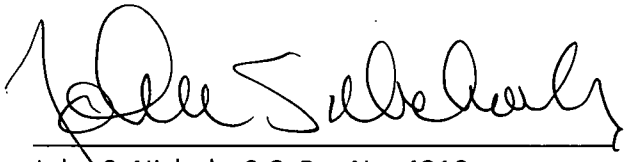
[64] In 2012, Congress directed FEMA for the first time to revise flood maps based upon "future changes in sea levels, precipitation, and intensity of hurricanes." 42 U.S.C. § 100216(b)(3)(D) (2012).

[65] *See* ASFPM, A GUIDE FOR HIGHER STANDARDS IN FLOODPLAIN MANAGEMENT, p. 12 (2010) *available at*: http://www.floods.org/acefiles/documentlibrary/committees/Insurance/ASFPM_Higher_Standards_Reference_Guide_1010.pdf.

CONCLUSION

The Special Referee correctly rejected Columbia Venture's physical taking claim and properly concluded that neither Richland County's adoption of the FEMA flood maps nor the amendment and interpretation of its ordinances resulted in a regulatory taking of the subject property under *Penn Central*.

Respectfully submitted,



John S. Nichols, S.C. Bar No. 4210
Bluestein, Nichols, Thompson, & Delgado, LLC
1614 Taylor Street
Post Office Box 7965
Columbia, South Carolina 29202
(803) 779-7599
jsnichols@bntdlaw.com

Counsel for Amicus Curiae
Association of State Floodplain Managers

September 8, 2014.