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Developing a Beachfront Digital Inventory to Enforce South Carolina's 40-Year Retreat Policy

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Jurisdictional “baselines” and “setback lines” were established by the Beachfront Management Act, which was passed in 1988 and appended to the South Carolina Coastal Zone Management Act of 1977. These lines help regulate the repair or reconstruction of buildings that have been damaged following a storm. Existing habitable structures must be rebuilt farther landward, if possible, when storm-related damage exceeds 66%. To enforce this policy of retreat from eroding shorelines, SCDHEC-OCRM conducts post-storm damage assessments based on the pre-storm condition of the structures. The agency has accumulated 35mm print photographs of many of the beachfront buildings within its jurisdiction, but most of the photographs are from the early 1990s, and significant new construction has occurred since this time. To complete a digital inventory of the beachfront buildings, all of the 35mm prints are being scanned and saved as JPEG files according to city and street address. Google Earth® is also being used to determine which buildings are missing from the inventory and where new or replacement construction has occurred. For the North Myrtle Beach and Atlantic Beach communities, which have 391 beachfront buildings combined, only 199 buildings, or 51%, are documented correctly in the existing print inventory. The remaining 49% of the buildings are either missing from the inventory or have been replaced by newer construction that has not yet been photographed. To fully enforce South Carolina's retreat policy, it is essential to maintain a digital inventory of ground-level images showing the pre-storm condition of each beachfront building.

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