Cities across America have found creative ways to integrate green infrastructure with recreation in new and existing parks.

A schoolyard in New York is easing the burden on an overtaxed waterway while also providing additional community play space in a park-poor neighborhood.

Brooklyn’s P.S. 261, whose schoolyard had been paved over decades earlier, leaving a half-acre of asphalt and a deteriorated jungle gym for recess, was one of the few locations in its neighborhood that had a bit of open space. Fortunately, the site was a priority for two different city agencies — the city’s Department of Education (for playground renovation) and the Department of Environmental Protection (for water quality improvements from reduced sewer overflows) — as well as a private conservation group, The Trust for Public Land.

Even in the cramped quarters of an inner-city schoolyard, it’s not either/or — play or store. All told, the half-acre park can capture about 500,000 gallons of stormwater annually.
TPL has been working with New York City since 1996 to convert school playgrounds into after-school-hours community parks. In the early days of the partnership, the goal was merely to work with students, parents, teachers and community residents to create great play spaces with such amenities as fields, running tracks, gazebos, basketball and game courts, and even hair-braiding areas. Beginning in 2012, the mission was expanded to also include stormwater management.

P.S. 261 was the first of what became 40 schoolyard renovations carried out through the three-way partnership. Although the construction could have become a source of strife in the community, the public process and the many ancillary benefits to the neighborhood were so compelling that the reworked park was accepted enthusiastically. Permeable pavers reduce runoff from the hardtop, rain gardens and the artificial turf field absorb runoff, and the gazebo features a green roof and rain barrels to store runoff for irrigation during dry spells. The field itself consists of permeable artificial turf underlain with broken stone to store stormwater and perforated pipes for drainage. All told, the half-acre park can capture about 500,000 gallons of stormwater annually.

Fortunately, even in the cramped quarters of an inner-city schoolyard, it’s not either/or — play or store. “Stormwater management features always rank high on kids’ priority lists. They like green spaces,” explained Mary Alice Lee, New York playground program director for TPL. “It’s not a tradeoff between basketball courts and rain gardens since we can squeeze both into even a small space.”

Each renovated schoolyard costs about $1 million (including $650,000 for construction) and is funded primarily by the two agencies with supplemental donations raised by TPL. As with other schoolyards renovated through the initiative, P.S. 261 must be open to the general public outside of the school day from dawn to dusk and on weekends, vacations, and holidays; the school’s custodian receives extra compensation from the city for taking on added responsibilities in the schoolyard.

“There are always growing pains in taking a successful program to scale,” explained DEP assistant commissioner Angela Licata, “but our only challenge has been managing construction delays against our strict Consent Decree deadlines. This was such a clear win-win situation for us and the school that we’d like to see participatory design and stormwater management become standard practice in every schoolyard capital improvement in New York.”

This case study is excerpted from City Parks, Clean Water: Making Great Places Using Green Infrastructure. The full report and additional materials are available for download here.