



# Kestrel Methodology Release Notes

## SUSTAINABILITY ANALYSIS AND SCORES

### PROCESS FOR METHODOLOGY UPDATES

This document summarizes updates and refinements to methodologies for Kestrel Sustainability Analysis and Scores™. Kestrel constantly monitors and reviews best practices for sustainable infrastructure development. Evaluation methodologies remain dynamic in response to evolving science and needs of market participants.

Factors that prompt updates to scoring methodologies include changes to widely accepted best practices, new rules or regulations, or improvements necessary for consistency and increased transparency for subscribers. For information on Kestrel methodologies, visit [kestrelesg.com/methodology](https://kestrelesg.com/methodology).

### METHODOLOGY UPDATES: 2025

#### 2025 Quarter 1 (Jan 1 – Mar 31)

Wastewater Method Updated to Reflect PFAS as Listed Contaminant by EPA	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>Some Environmental scores may be reduced by up to 1.00</li> <li>Some Composite Scores may be reduced by up to 0.55</li> </ul> <p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>	<p><b>Sector:</b> Wastewater; Wastewater and Stormwater</p> <p><b>Description:</b> Reuse of byproducts from wastewater treatment as a soil amendment is no longer eligible for credit in Kestrel methodologies. Sewage sludge (“biosolids”) may include contaminants.</p> <p>The updated methodology requires review of biosolid management practices by an issuer and, if applicable, statement of reuse practices in the Use of Proceeds Description.</p> <p><b>Background:</b> Updates to wastewater methodologies based on a US EPA risk assessment<sup>1</sup> of PFAS in sewage sludge (“biosolids”). PFAS, or “forever chemicals,” are synthetic compounds used since the 1940s that persist in the environment and have been linked to health risks. Wastewater treatment does not remove PFAS, so the compounds can remain in treatment byproducts. Some states restrict biosolids use, but they are sometimes reused in agriculture, potentially leading to exposure through the food supply.</p>

<sup>1</sup> “Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS),” United States Environmental Protection Agency, January 14, 2025, <https://www.epa.gov/biosolids/draft-sewage-sludge-risk-assessment-perfluorooctanoic-acid-pfoa-and-perfluorooctane>.

2025 Quarter 1 (cont.)

Sustainability Themes Added to Increase Transparency	
<b>Impact on Scores</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Sectors:</b> Agricultural Water System; California Redevelopment Agency; Freight Rail; Recreation Centers; Parking Facilities; Pools; Waste-to-Energy; Waste Management; Stadiums; and Zoos & Aquariums
<b>Engineering Action</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Description:</b> Increase transparency in scoring by updating Sustainability Themes. Refined Sustainability Themes: <ul style="list-style-type: none"> <li>• Transit-Oriented Development</li> <li>• Pollution Prevention Outreach</li> <li>• Additional Public Benefit</li> <li>• Blight Remediation or Brownfield Redevelopment</li> </ul>

Battery Storage: New Subsector and Method	
<b>Impact on Scores</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Sectors:</b> Battery Storage
<b>Engineering Action</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Description:</b> Addition of new subsector, Battery Storage, for significant bond-financed battery infrastructure projects. Prepayment transactions that include battery assets are not scored in the Battery Storage subsector.

**METHODOLOGY UPDATES: 2024**

2024 Quarter 4 (Oct 1 – Dec 31)

Sustainability Themes Added to Increase Transparency	
<b>Impact on Scores</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Sectors:</b> Water Storage, Wholesale Water, Multi-Family Housing
<b>Engineering Action</b> <ul style="list-style-type: none"> <li>• None</li> </ul>	<b>Description:</b> Increase transparency in scoring by updating Sustainability Themes. Refined Sustainability Themes: <ul style="list-style-type: none"> <li>• Impacts of New or Expanded Dams or Reservoirs</li> <li>• Nexus to Flint Water Crisis</li> <li>• Blight Remediation and Brownfield Redevelopment</li> </ul>

**2024 Quarter 3 (Jul 1 – Sept 30)**

Sustainability Themes Added to Increase Transparency	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Sectors:</b> Seaports, Skilled Nursing/Assisted Living, K-12 Public Schools, Professional Sports Stadiums</p>
<p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Description:</b> Increase transparency in scoring by updating Sustainability Themes. Refined Sustainability Themes:</p> <ul style="list-style-type: none"> <li>• Cruise Terminal</li> <li>• Innovative Care Model</li> <li>• State Oversight</li> <li>• Preschool or Early Childhood Education</li> <li>• Equity Programs</li> <li>• Bond-related Social Controversy</li> <li>• Transit-Oriented Development</li> </ul>

Expand Resilience Analysis of Storm Shelters in Long-Term Care Facilities	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• Some Social scores may be increased by up to 0.50</li> <li>• Some Composite Scores may be increased by up to 0.28</li> </ul>	<p><b>Sectors:</b> Skilled Nursing/Assisted Living</p>
<p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Description:</b> Added review of bond-financed storm shelters in long-term care facilities, including skilled nursing and assisted living facilities. Storm shelters are one of multiple resilience features identified in Kestrel analysis.</p>

**2024 Quarter 2 (April 1 – June 30)**

Sustainability Themes Added to Increase Transparency	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Sectors:</b> Bioenergy</p>
<p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Description:</b> Increase transparency in scoring by updating Sustainability Themes. Refined Sustainability Themes:</p> <ul style="list-style-type: none"> <li>• Impacts of Confined Animal Feeding Operations</li> </ul>

2024 Quarter 1 (Jan 1 – March 31)

Sustainability Themes Added to Increase Transparency	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Sectors:</b> Public Facilities, Multi-Family Housing</p> <p><b>Description:</b> Increase transparency in scoring by updating Sustainability Themes. Refined Sustainability Themes:</p> <ul style="list-style-type: none"> <li>• Impacts of Casinos</li> <li>• Social Services or Transit-Oriented Development</li> </ul>

Electrification of Central Utility Plants Added to Healthcare Method	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• Some Environmental scores may be increased by up to 1.00</li> <li>• Some Composite Scores may be increased by up to 0.25</li> </ul> <p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Sectors:</b> Hospitals, Specialty Hospitals, Mental Health/Addiction Services, Health Clinics</p> <p><b>Description:</b> Major bond-financed electrification of central utility plants on healthcare campuses is eligible for credit in Kestrel methodologies. Major utility improvements to electrify infrastructure and use renewable energy receive credit.</p>

Cordon Tolling: New Subsector and Method	
<p><b>Impact on Scores</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>Engineering Action</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><b>Sectors:</b> Cordon Tolling</p> <p><b>Description:</b> Addition of new subsector, Cordon Tolling, for significant bond-financed congestion tolling projects.</p>

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Kestrel is a leading provider of external reviews for green, social and sustainability bond transactions. We evaluate corporate and municipal bonds in all sectors worldwide for conformance with international green and social bond standards.

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