

Science Needs for the Land Use Outcomes



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- Full resources
- Partial resources
- No resources

New and Emerging Science Needs - High Priority

Need: Develop attributes for the hyper resolution hydrography data on stream flow permanence/periodicity

- What needs to be done to address it? Develop a predictive model of stream flow permanence/periodicity.
- What is the urgency/reason for the need? High priority as it enables the identification of perennial streams which inform forest buffer and riparian data needs across multiple outcomes as well as CWA regulatory requirements. It will also help with assessing climate change impacts on ecological flow metrics.
- Who are the currently engaged resources? Included in the long-term land use monitoring plan but currently unfunded.
- Are there potential resources and do you need support engaging them? Dedicated CBP funding from federal agencies.

- Full resources
- Partial resources
- No resources

New and Emerging Science Needs - High Priority

Need: Collate and curate local spatial data on building permits to assess and map near-term development potential.

- What needs to be done to address it? Explore the availability and accessibility of local building permit data and compare it to the construction data already provided by states to CAST and with the building permit data already reported to the Census Bureau.
- What is the urgency/reason for the need? While using models to forecast future development is necessary for assessing the combined effects of land use and climate change, development over the next 5-10 years has typically already been approved and permitted. Mapping approved building permits will provide highly accurate information on potential future land change in time for the possible intervention to mitigate impacts.
- Who are the currently engaged resources? LUWG, HWGIT
- Are there potential resources and do you need support engaging them? Local government planning agencies and regional/state planning agencies. Potential GIT funding or connection and coordination with existing efforts.

- Full resources
- Partial resources
- No resources

New and Emerging Science Needs - High Priority

Need: Translate, format, package, and communicate LULC information and policy guidance to organizations and individuals trusted by local decisionmakers to inform a variety of policies and programs including land use and comprehensive plans, hazard mitigation and climate resiliency plans, as well as greenway, recreational and forestry management.

- What needs to be done to address it? Further develop tools (e.g., County Tree Canopy Fact Sheets) based on stakeholder feedback to communicate information on LULC characteristics, trends, and consequences to localities. Identify translators within key organizations to share LULC information with local trusted sources (e.g., planning staff) and leaders. The “translator” positions are needed in each major jurisdiction or sub-basin with representation on the Land Use Workgroup;
- What is the urgency/reason for the need? High priority because communication tools and translators are critical to the success of the CBP’s efforts to inform local land conservation and land use planning activities.
- Who are the currently engaged resources? LUWG, HWGIT, Local Leadership Workgroup, FWG, Strategic Engagement Team
- Are there potential resources and do you need support engaging them? Assistance identifying existing networks or individuals who are already serving in “translator” roles. Dedicated annual CBP funding for jurisdictions may be needed to support these positions.

- Full resources
- Partial resources
- No resources

New and Emerging Science Needs - High Priority

Need: Quantify impact of land conversion on communities. Develop a better understanding of the needs of underserved and other communities and of their perception of land use characteristics, trends, and policy/planning tools.

- What needs to be done to address it? Engage with underserved communities and identify strategies to effectively address trends in land use and loss of natural resources and open space that are responsive to community needs and goals.
- What is the urgency/reason for the need? The loss of trees, forests, and wetlands and increases in impervious cover threaten the health of watersheds and threaten public health in communities. High priority need to better meet the CBP's DEIJ and climate resiliency goals and Presidential mandates.
- Who are the currently engaged resources? Chesapeake Healthy Watersheds Assessment, Land Change Model/Watershed model, CBP Communications Team and HWGIT through a 2023 GIT funding project.
- Are there potential resources and do you need support engaging them? Local Leadership WG, 2023 GIT funding project (Community Response to Land Use Change). Diversity Workgroup and Stewardship GIT. Support for working with underserved communities is needed.

- Full resources
- Partial resources
- No resources

New and Emerging Science Needs - High Priority

Need: Develop stronger incentives for land conservation and land use management policies as part of the overall Chesapeake Bay watershed restoration effort.

- What needs to be done to address it? Example: WQGIT and PSC decisions that grant 100% credit to land conservation as avoided conversion.
- What is the urgency/reason for the need? Additional incentives are needed to achieve CBP and CCP land conservation goals (e.g., 30x30).
- Who are the currently engaged resources? States, CCP, WQGIT, LUWG
- Are there potential resources and do you need support engaging them? Research into ways and rationales other organizations have valued land conservation and land use planning to incentivize behavior.

Questions ?

Point of Contact information for new/emerging science needs.*

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* Multiple Points of Contacts allowed for each science need.