

Open Space Mitigation Mapping

Tracking Open Space for Flood Resilience in West Virginia

WV GeoCon 2026
West Virginia GIS Technical Center

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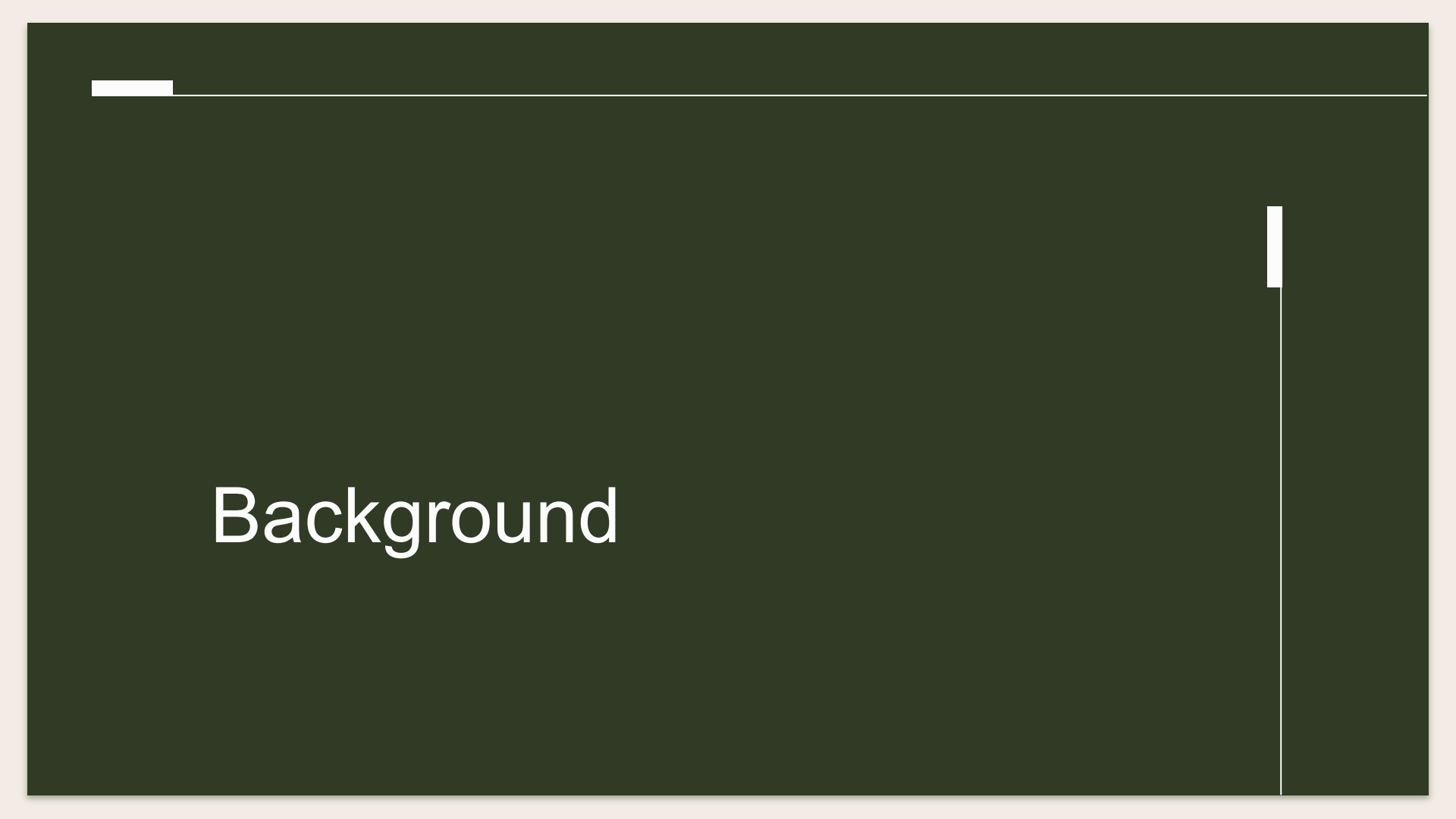
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The image features a solid dark green background. In the upper left corner, there is a small white horizontal rectangle. A thin white horizontal line extends from the right edge of this rectangle across the top of the image. On the right side, there is a small white vertical rectangle. A thin white vertical line extends from the bottom edge of this rectangle down the right side of the image. The word "Background" is written in a large, white, sans-serif font, centered horizontally and positioned in the lower half of the image.

Background

What is open space mitigation?

- Voluntary property-level acquisition buyouts from federal grants are the most common flood adaptive measure implemented in WV -> these properties are converted to open space
- Open space is defined as “space permanently dedicated to uses compatible with natural floodplain functions, hazard risk reduction, or environmental conservation” (FEMA).
- Open space parcels can be classified as deed restricted (deed prohibits building affixed to the land) or open space preservation (community-maintained open space, not required by deed)

In partnership with West Virginia Emergency Management Division, the goals of the WVGISTC's open space mitigation mapping are to:

- **Create a statewide open space inventory,**
- **Improve community access to mitigation data,** and
- **Standardize parcel tracking.**



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Why does it matter?

- Open space parcels reduce future structural flood exposure
- Flood-prone communities need accurate mitigation inventories
- Tracking flood mitigation outcomes is essential for communities:
 - Measuring loss avoidance
 - Sustaining a community's flood protection level
 - Long-term hazard planning
 - Future implementation of flood reduction measures





Data

Necessary Data

Parcels

Statewide tax parcel
layer

Deeds

Searchability in IDX
system to determine
presence of deed
restrictions

Flood Zones

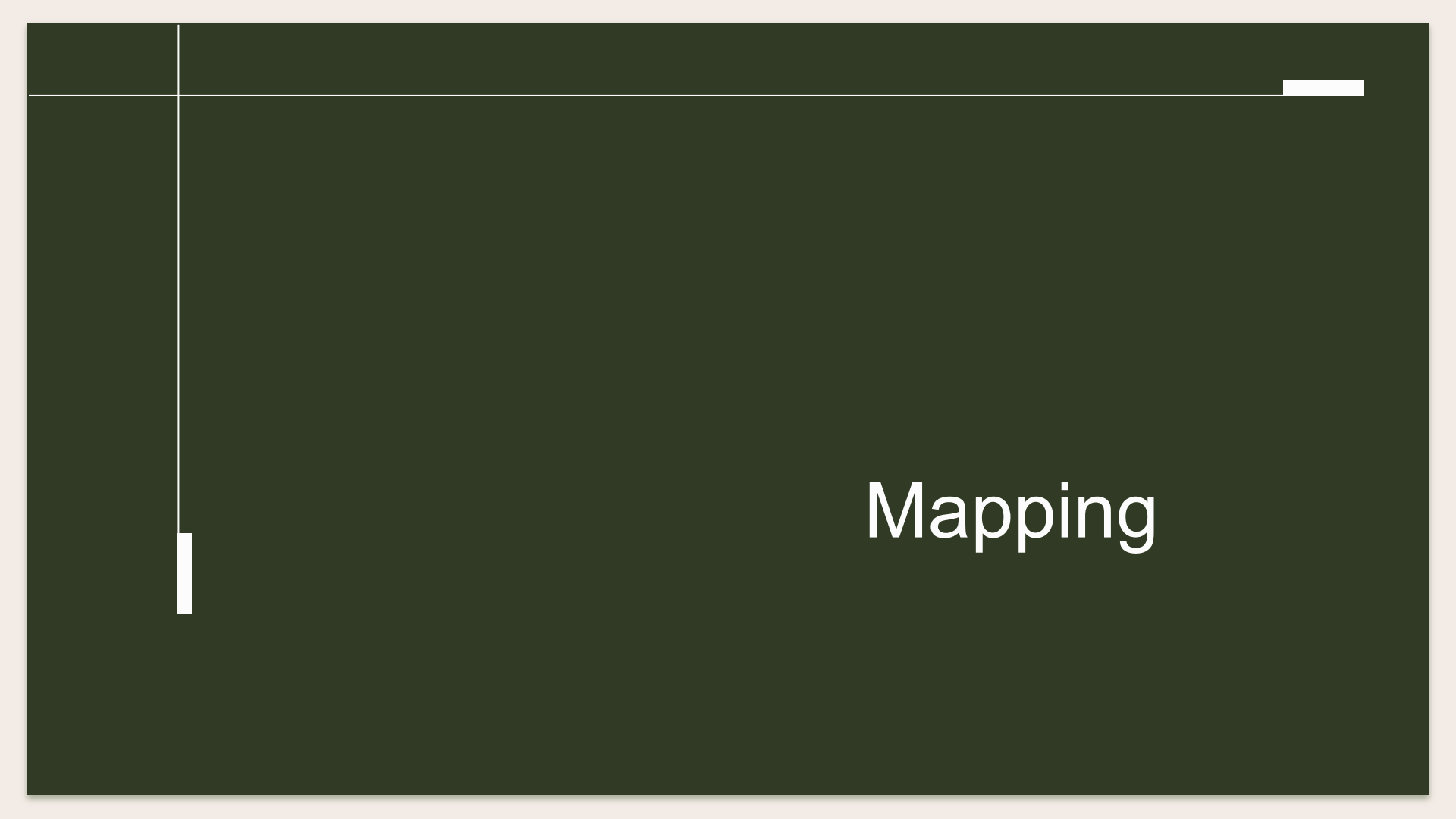
Parcel must be within a
flood zone to qualify for
our flood mitigation
inventory

Acquisition Information

Attributes provided by
sponsoring agencies such
as FEMA, NRCS, USACE

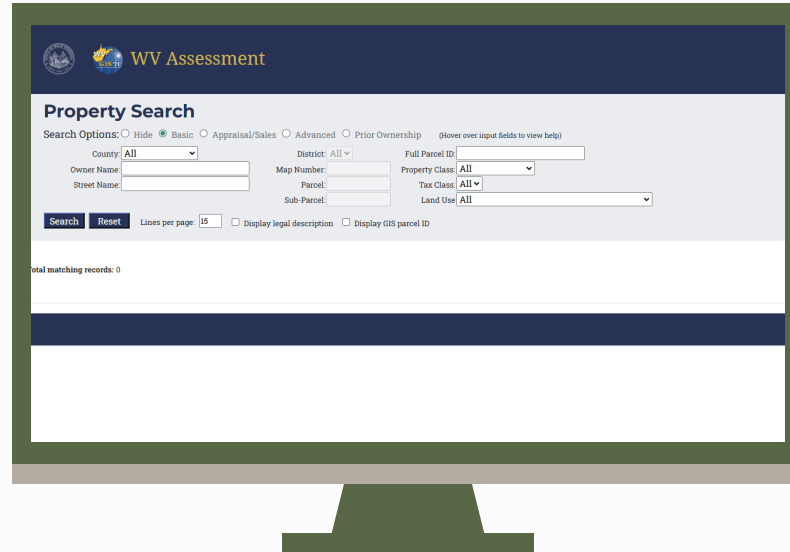
Assessment Records

Ownership, assessment
value



Mapping

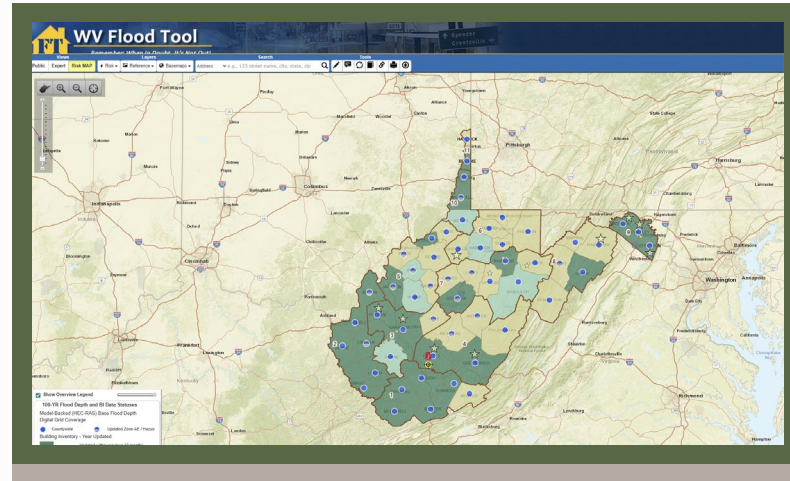
WV Property Search



The screenshot shows the 'WV Assessment' website's 'Property Search' page. The header includes the WV state seal and 'WV Assessment' text. The 'Property Search' section has a 'Search Options' bar with radio buttons for 'Hide', 'Basic' (selected), 'Appraisal/Sales', 'Advanced', and 'Prior Ownership'. Below this are various search filters: 'County' (dropdown set to 'All'), 'District' (dropdown set to 'All'), 'Full Parcel ID' (text input), 'Owner Name' (text input), 'Map Number' (text input), 'Property Class' (dropdown set to 'All'), 'Street Name' (text input), 'Parcel' (text input), 'Tax Class' (dropdown set to 'All'), 'Sub-Parcel' (text input), and 'Land Use' (dropdown set to 'All'). At the bottom of the filters are 'Search' and 'Reset' buttons, and checkboxes for 'Lines per page: 15', 'Display legal description', and 'Display GIS parcel ID'. Below the filters, it says 'Total matching records: 0'.

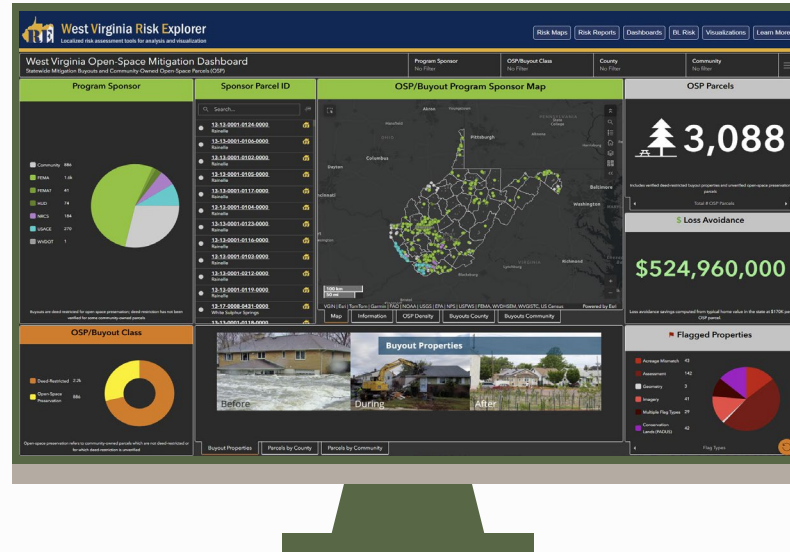
County audits are performed by searching for community-related owner names and filtering out any parcel with property worth over \$10,000

WV Flood Tool



Search results are validated on the WV Flood Tool. All inventoried open space properties (buyouts) are visible here as well.

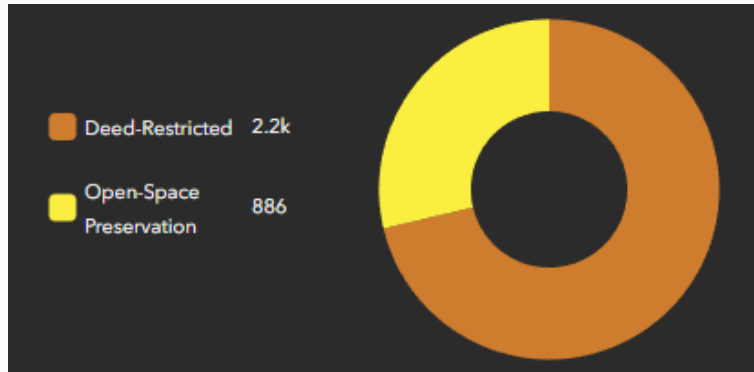
Open Space Mitigation Dashboard



View statewide open space parcels based on sponsor or location, as well as statistics such as DeedRestricted vs. Open Space

Discussion

Key Findings



- 3,008 mapped open space parcels statewide
- 71% are Deed-Restricted, while 29% are maintained as open space by their community
- Almost a third of open space parcels being locally maintained may suggest increasing community interest in preserving open space

Community Benefits

Flood
mitigation
accountability

Improved
grant reporting
and planning

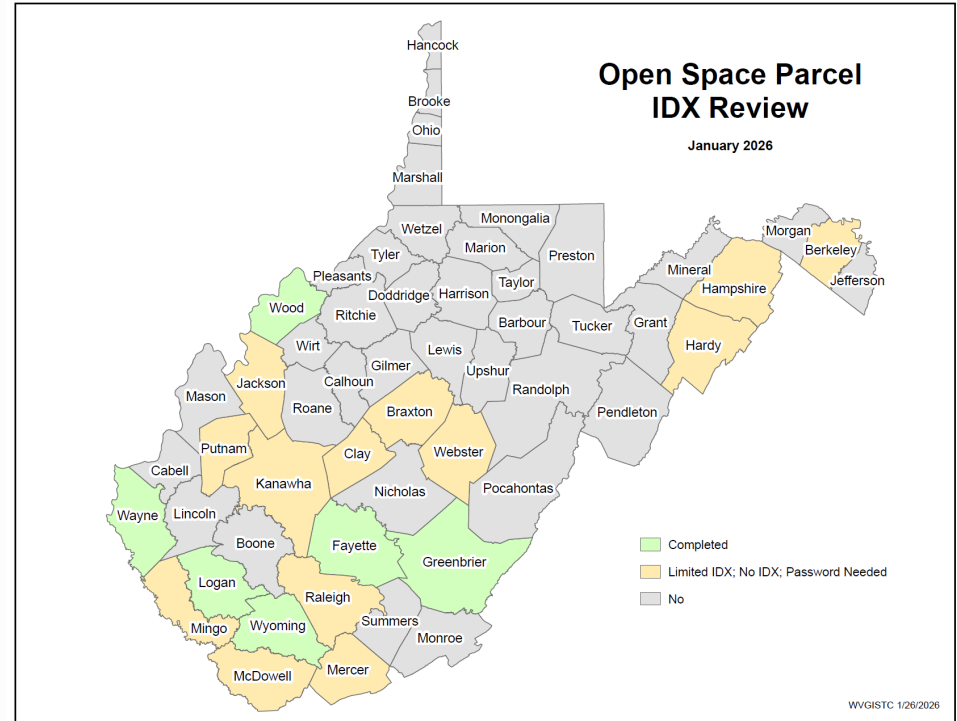
Enhanced decision-
making for

- Land use
- Hazard mitigation plans
 - Future acquisitions

Supports long -term
resilience strategies

Future Directions

- Expand and maintain statewide inventory
- Increase access to county records
- Support statewide resilience initiatives



Conclusions

Open Space Mitigation Mapping...

...empowers communities to track and visualize open space.

...facilitates the identification of mitigated properties and provides a centralized inventory.

...improves transparency, tracking, and planning of community flood resilience.

Thank you!

Do you have any questions?

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