

VEST MT 2018

State: Montana

Organization: Voting and Election Science Team (VEST)

Summary of Races included: U.S. Senate, U.S. House, Clerk of Supreme Court [General]

Date File Updated: 06/02/2021

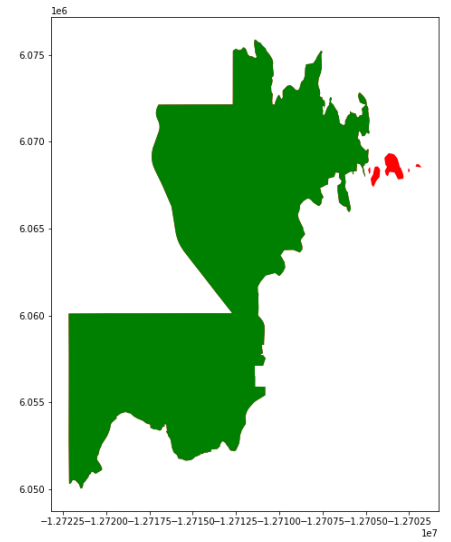
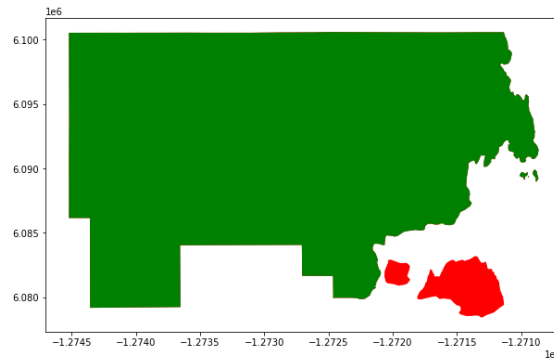
Date Report Updated: 06/23/2021

RDH Validation Code (Github): <https://github.com/nonpartisan-redistricting-datahub/pdv-mt>

RDH Criteria	Explanation
<p>Is all raw data available?</p> <p>Yes</p>	<p><u>Accessible files:</u></p> <ul style="list-style-type: none"> ● VEST MT 18 data file <ul style="list-style-type: none"> ○ Accessed 06/15/21, Source: VEST ○ https://dataverse.harvard.edu/file.xhtml?fileId=4773522&version=39.0 ● VEST MT 18 documentation file <ul style="list-style-type: none"> ○ Accessed: 06/15/21, Source: VEST ○ https://dataverse.harvard.edu/file.xhtml?fileId=4789400&version=39.0 ● MT Precinct-Level Election Results <ul style="list-style-type: none"> ○ Accessed: 06/16/21, Source: MT Secretary of State Election Archive ○ https://sosmt.gov/elections/results/ ○ Note: Click 2018 Election Results-Precinct by Precinct to download. ● MT Voting Precincts 2018 Shapefile <ul style="list-style-type: none"> ○ Accessed: 06/11/21, Source: Montana State Library ○ https://mslservices.mt.gov/Geographic_Information/Data/DataList/datalist_Details.aspx?did=%7bdbc29997-21d8-4af1-9d87-5c5134775995%7d ○ Note: Click "Download Data" button and then MontanaVotingPrecincts_shp.zip ● Lewis & Clark County Shapefile <ul style="list-style-type: none"> ○ Accessed: 6/17/2021, Source: Lewis and Clark County ○ https://www.lccountymt.gov/it/gis-maps/completed-maps/voting-precincts.html ○ Note: only PDFs of the precinct maps are available.

<p>Processing steps available?</p> <p>Yes</p>	<p><u>Description of processing steps:</u></p> <ul style="list-style-type: none"> ● The full processing steps can be accessed at the link above and were accessed on 06/16/21. The steps are short enough to copy fully below: <ul style="list-style-type: none"> ○ Election results from Montana Secretary of State (https://sosmt.gov/elections/results/) ○ Precinct shapefile primarily from Dave Ritts at the Montana State Library, as prepared for submission to the U.S. Census Bureau's 2020 Redistricting Data Program. ○ The A/B subdivisions of Precinct 16 and Precinct 33 in Lewis and Clark were added based on county precinct maps. ● We were able to visually confirm but did not perform splits, for precinct shapefile validation we merged them. <p><u>Information not in their processing steps:</u></p> <ul style="list-style-type: none"> ● List of name changes for precincts between election results and VEST's file. ● Precinct 1 in Treasure county subdivisions into Precinct 3, 4, and 6.
<p>Able to replicate joining election data and shapefiles?</p> <p>Yes</p>	<p>Yes, we were able to replicate joining election data and shapefiles.</p> <ul style="list-style-type: none"> ● There were initially 672 precinct shapefiles and 669 precinct election results. ● Merges of Precincts 16, 16A, and 16B and precincts 33, 33A and 33B in Lewis and Clark county were done according to processing steps. ● Merge of Precincts 3, 4, and 6 in Treasure county into Precinct 1 was also done but was not in the processing steps. ● After the name changes listed above all but 3 zero vote precincts were able to be joined. ● Assigned the names 'FLATHEAD-1', 'FLATHEAD-2', and 'LAKE-1' to both the VEST file and the shapefile for the 3 zero vote precincts. The files were then able to be fully joined.
<p>Able to replicate joining demographic data to block-level shapefiles?</p>	<p>There is no demographic data on the file.</p>

N/A	
<p>Able to replicate joining boundary data?</p> <p>N/A</p>	<p>There is no boundary data on the file.</p>
<p>Successfully ran validation?</p> <p>Yes</p>	<p><u>Election results:</u> Yes</p> <ul style="list-style-type: none"> ● We validated the election results at the state, county and precinct levels. ● At the state-level, candidate vote totals matched exactly. The statewide race totals also matched the totals from the State Canvass report (https://sosmt.gov/wp-content/uploads/2018GeneralReportStateCanvass.pdf) on the MT SOS website. ● At the county-level, candidate vote totals matched exactly. ● At the precinct-level, candidate votes also matched exactly. <p><u>Geographies:</u> Yes</p> <ul style="list-style-type: none"> ● Out of 666 total precincts: <ul style="list-style-type: none"> ○ 29 precincts w/ a difference of 0 km² ○ 571 precincts w/ a difference between 0 and 0.1 km² ○ 58 precincts w/ a difference between 0.1 and 0.5 km² ○ 5 precincts w/ a difference between 0.5 and 1 km² ○ 1 precincts w/ a difference between 1 and 2 km² ○ 2 precincts w/ a difference between 2 and 5 km² ○ 0 precincts w/ a difference greater than 5 km² ○ The largest differences in the shapefiles concern Flathead lake. It appears that VEST assigned islands(red) in Flathead lake to precincts “DAY 1 HD12” and “POL 2 HD12”.



- Other differences greater than 0.1km^2 appear to be boundary differences and can be seen in the notebook.