Crowdsourcing The National Map
The National Map Corps

Using an online web mapping application, volunteers update structures in support of The National Map & US Topo Maps

- Participants - General Public
- Easy registration - username and email address (OAuth)
- All materials online (i.e. user guide, Q&A)
- Process - Verify, update, add or delete points
  - Required: Check location and Name
  - Optional: Address, City, Zip

Data collected: downloadable, freely available, and in the public domain.
Current Scope

All 50 states, PR, USVI, and Pacific Territories

- **Structure types**
  - Schools
  - College/University
  - Fire Station/EMS
  - Law Enforcement
  - Prison/Correctional Facility
  - State Capitol
  - Hospital/Medical Center
  - Ambulance Service
  - Cemetery
  - Post Office
  - Courthouses
  - City/Town Hall
Ensuring Quality (QA)

- Tiered-editing approach
  - Standard Editors
  - Peer Reviewers (+25 & quick QA review)
  - Advanced Editors (+200 & QA review)

- User guides and online materials
  - Describes editing process, what to collect/not to collect, attribute formatting
  - Q&A and FAQs
Ensuring Quality (QC)

- **“Magic Filter”** - Automated Checks
  - Formatting errors
  - Spelling
  - Vandalism
  - Instant Feedback on errors

- **Review Queue**
  - Any points that fail Magic Filter
  - All deletions

- Daily quality monitoring
  - New editors
  - Large # of edits
  - Deletions
  - Role promotion QCs
  - Volunteer emails

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**Fosston High School**

This school was labeled as a high school when grade levels posted on its website and handbook fall into the category of a combined middle- and high-school. So I changed the symbol from a high school to a general school.

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Possible Errors Have Occurred

The edit has been saved but will require additional review. The issues are listed below:

**Naming**

- Please include one of the following in the “Name” field: Post Office, Postal Unit, Postal Station

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User Edit Activity Search 2018-05-01

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Hi RiverRunner,

Thanks for giving our project a try and for taking the time to do some editing! We really appreciate your involvement and we hope you’ll continue to work with us!

Since you’ve been doing a significant amount of editing lately, we performed another check on a sample of your points. This is something we do for all of our volunteers to see where we can provide assistance while making sure that the data going into The National Map is of excellent quality.

As I was reviewing your points, I made a few adjustments.
Quality Studies

Colorado Quality Study (FY2012)

National Quality Study (FY2014)
2018 Data Review

- 10% margin of error, 95% confidence level with a population of 138,318

- Sample size: 96
  - Standard Editor (n=63)
  - Peer Reviewer (n=4)
  - Advanced Editor (n=29)

Accuracy by Editor Role

- Overall Accuracy (Position and Name)
  - 94.7%
  - Fail: 5.3%
  - Pass: 94.7%
Keeping the Crowd Happy

- Special concerns for crowdsourcing projects:
  - Volunteer Recruitment
  - Volunteer Engagement
  - Participant Motivation
Recruitment and Engagement

- Volunteer opportunity websites (volunteer.gov, VolunteerMatch, SciStarter, etc.)
- Social media
- USGS news releases
- Conferences, publications, presentations
- Newsletters
- Communication
  - Email
  - Q&A
Engagement

- Welcome emails
- Structure Finder
- New content (e.g. courthouses and city/town halls, Pacific Territories)
- Volunteer stories/articles
Participant Motivation
Recognition Program

- Earn virtual badges
- Recognition via social media, newsletters, websites
Participant Motivation / Engagement

Map Challenges & Focused Data Editing
Results

- 700,000+ volunteer contributed points
- Over 3,300 volunteer contributors
- Daily editing average: 200+ edits
- 8.4 FTE (full-time equivalents) annually
- Proven data quality
- Supports the mission: The National Map and US Topo maps
- Exposure for USGS mapping products and services
- Community engagement
Priority Improvements for FY23

- Release mobile-friendly editor
- Release previously approved content
  - Rec features (campgrounds, trailheads, visitor centers)
- Get approval for additional content
- Implement restricted editing (e.g. no volunteer editing over NPS lands)
- Collaborations with other government agencies:
  - FEMA/ORN on buildings
  - OSM/DOT/FRA on RR tunnels
- Explore staging an application for quick emergency response
New Editing Application

Coming Soon

- Improved and modernized
- Integrated mapping challenges, recognition, volunteer communication and Q&A
- Leaderboards
- User added services
- Partner data capabilities
  - Batch uploads
  - Restricted editing
Do some editing!
edits.nationalmap.gov/tnmcorps

- Easy to sign up and get started
- All materials (e.g. user guide) online
- No commitment
- It’s fun! 😊
Questions?
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