In an effort to mitigate stormwater runoff and improve water quality in Proctor Creek, green infrastructure projects are being proposed and implemented. Green infrastructure is a type of construction that integrates natural processes into urban settings to encourage environmental sustainability. However, after years of what they feel is mistreatment by government, many Proctor Creek residents do not trust this new initiative. This capstone is an effort to create clearly understandable outreach materials regarding green infrastructure for the residents of this watershed.

**Project Objectives:**
1. Create easy-to-read materials regarding the usefulness and potential for green infrastructure implementation in the Proctor Creek watershed
2. Complete a hydrologic model of the watershed and factor in impervious surfaces to identify areas that could benefit from green infrastructure implementation
3. Submit these materials to Dr. Amy Kirby, assistant professor in the Rollins School of Public Health’s Global Health Department, and the Global Center for Safe WASH to be presented to residents in the watershed who have questions about how this technology will affect them

**Methods:**
- A literature review was conducted to gather information about Proctor Creek, Impervious Surfaces, and Hazards of Urban Stormwater; five types of green infrastructure were also analyzed and effective public communications regarding green infrastructure implementation was studied.
- This information was condensed and converted into plain language. The material in the handbook is presented at an 8th grade reading level or lower.
- Graphics for the handbook were created using the infographic maker Piktochart.
- Maps of the watershed were created using ArcGIS and TauDEM software to demonstrate how a neighborhood in Proctor Creek drains water and how impervious surfaces can affect that drainage.
- The infographics and maps were combined into one document to be easily distributed to Proctor Creek residents.

**Discussion**

This handbook can be used as a tool in the Atlanta area to educate community members about the risks of urban stormwater, the benefits of green infrastructure, and explain how common types of green infrastructure work. Materials in the handbook are created to be easily understood. The handbook has been presented to Emory’s Center for Global Safe Water, Sanitation, and Hygiene where it can be used in ongoing projects in the Proctor Creek community.

The West Atlanta Watershed Alliance has also received this handbook and are considering including it in their Watershed Academy. This can also be distributed to local organizations such as Chattahoochee Riverkeeper and Park Pride who participate in projects in this watershed. EPA has also expressed an interest in using this project in the Urban Waters web page they have created for Proctor Creek.

By creating this project using the website Piktochart, the handbook pages can be edited in the future while still looking consistent and polished. The green infrastructure diagrams are created in such a way that they can be used together or separately. Contact information is provided on the final page of the handbook so that interested citizens can reach out to receive more information about Proctor Creek and green infrastructure.

**Conclusions**

- It is important to empower community members in urban communities so that they have a say in what happens in their neighborhoods.
- This handbook can serve as a tool to educate watershed residents about the benefits of green infrastructure and help them take action to stop urban stormwater runoff.
- The maps offer visual examples of how impervious surfaces affect the grounds ability to drain water.

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