

Executive Summary.

Understanding Human Impacts on Natural Resources from Recreational and Land Development Activities in the 285 Corridor



Image Source: O'Fallon Park in Autumn, 2017, from author's personal collection

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Colorado and its abundant natural resources often serves as an outdoor playground for its inhabitants. A person has a plethora of outdoor recreational activities from which to choose: hiking, mountain biking, fishing, hunting, camping – the list goes on and on. These natural resources also generate industry: mining activities, agriculture, and tourism, to name a few. However, the human impacts of these activities play a major role on the natural environment. Water bodies and soil have been polluted, wildlife habitats have been interrupted or altered, and wildfires are hotter and more intense than any time in history. At what point are we loving and using the natural world too much?

In looking to the field of recreation ecology, scientists have begun to study the impacts that humans have on the natural environment through outdoor recreation. The purpose of this project is to conduct a natural resource assessment of the Upper South Platte sub-basin. Specifically, the project will focus on the corridor surrounding US Route 285. The “corridor” is defined in this project as four watersheds within the sub-basin: headwaters of the north fork of the South Platte River; outlet of the north fork of the South Platte River; Chatfield Lake South Platte River; and Bear Creek. By assessing the natural resources of these watersheds, natural resource areas of concern can be identified, thereby aiding in future planning efforts.

In order to conduct this project, natural resources were divided into five categories and studied individually in both research and geospatial analysis, then natural resource map layers were combined and analyzed as a whole to identify the natural resource areas of concern. The categories are: water quality; vegetation communities; wildlife species and habitats; developed areas; and finally, recreational areas. Conclusions drawn from each category included and the combined geospatial analysis revealed that the Outlet of the North Fork South Platte River watershed was the least impacted by humans. Although it is largely not a protected or planned area, it is still worthy of protection to ensure the natural resources for future generations. Additional findings revealed that the area which borders the Headwaters of the North Fork South Platte River and Bear Creek watersheds are the most impacted by human activity, likely due to the amount of outdoor recreation in the Mt. Evans Wilderness Area.

In closing, recommendations were made as a result of examining water quality, vegetation communities, wildlife species and their habitats, developed areas, and recreational areas. Recommendations range from reduction in wildfire fuels to establishment of buffer areas around trails and water bodies to limiting development around wilderness areas and natural resource areas of concern. Due to the content of this project, the majority of recommendations made surround recreational development.