

# Research proposal for Claridge Canal

Qianyu Hang<sup>a</sup>, François Birgand<sup>\*,a</sup>

<sup>a</sup>*Biological and Agricultural Engineering, Capus Box 7625, Raleigh, NC, 27695*

## Abstract

A growing number of stream restoration projects have been undertaken to counteract the adverse effects of stream degradation worldwide. Nevertheless, controversies on the real impacts of stream restoration still exist. The objective of this paper is to review the current knowledge base on the impacts of stream restoration in water quality, hydromorphology and fish/invertebrate community. Based on the database developed in this study, 67% of projects indicated a positive effect of nitrogen reduction following restoration. Hydromorphological improvements were identified almost by all hydromorphological restoration efforts. As fish/invertebrate community require a long time-frame to recover, reaching common ground can therefore be difficult due to different time-frames applied by researchers. Given that restoration studies are usually site- and approach-specific, it is impossible to predict every outcome of a stream restoration project by simply extrapolating the results from one single study. However, finding some robust indicators for which could show the uniform trend following restoration is helpful for evaluating the effectiveness of stream restoration projects. Several future research needs should be highlighted: 1) implement high-resolution data analysis, in particular for water quality; 2) choose robust indicators for restoration project evaluation; and 3) avoid comparison using nearby reference streams.

## References

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\*François Birgand

Email addresses: [qhang@ncsu.edu](mailto:qhang@ncsu.edu) (Qianyu Hang), [birgand@ncsu.edu](mailto:birgand@ncsu.edu) (François Birgand)