

Friends of Lake Arthur Enhancement Project – Gonzaga University

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Lake Arthur: An Ecological Stepping Stone







Background of the Problem

- ▶ The Gonzaga community faces a threefold problem in regards to the state of Lake Arthur.
 - ▶ Lake Arthur is a potential resource for educational purposes for Gonzaga students of a multitude of majors and concentrations.
 - ▶ In the current ecological state of Lake Arthur, the ecosystem does not function adequately. We have the ability to invite various species of flora and fauna.
 - ▶ Finally, Lake Arthur's aesthetic qualities are subpar and we as Gonzaga students have a duty to restore the beauty to the lake.

Overarching goals

- ▶ We seek to enhance Lake Arthur to a fully functioning ecosystem that provides sanctuary for species of plants and animals as well as provide an educational resource for Gonzaga students.
- ▶ In addition, we would like to enhance the lake's aesthetic integrity.

Phase 1: Short term goals

- ▶ Increase vegetation/animal species
 - ▶ Ex. Cattails, willows, black birds, wood ducks
- ▶ Create bio swale
 - ▶ Reduce nutrient levels due to runoff
- ▶ Install a floating island
 - ▶ Provide habitat and bio filtration
- ▶ Retract lawn line
 - ▶ Allows for larger wetland/riparian area
- ▶ Raised walkway
- ▶ Trash/recycling bins

LAKE ARTHUR ENHANCEMENT PROJECT

NORTH SHORE PATHWAY SECTION A-A

IN ORDER FOR THE WALKER TO ENJOY THE VIEW OF LAKE ARTHUR FROM THE NORTH SHORE, THE WALKER WILL BE BUILT TO THE DESIGN STANDARD AND THE CONSTRUCTION SYSTEMS WITH AN IDEAL OVERLOOKING VIEWING POINT. INTERPRETIVE SIGNAGE WILL BE PROVIDED TO HELP EDUCATE THE WALKER ON THE PROCESS OF THE REHABILITATION OF THE LAKE AND THE NUTRIENT PROCESS.

IN A WALKER AND PATHWAY SECTION, LAKE ARTHUR WILL BE BUILT AS A WALKER WITH A WALKER AND PATHWAY SECTION. THE WALKER WILL BE BUILT TO THE DESIGN STANDARD AND THE CONSTRUCTION SYSTEMS WITH AN IDEAL OVERLOOKING VIEWING POINT. INTERPRETIVE SIGNAGE WILL BE PROVIDED TO HELP EDUCATE THE WALKER ON THE PROCESS OF THE REHABILITATION OF THE LAKE AND THE NUTRIENT PROCESS.



PROPOSED VEGETATED ISLAND PLANTS



FLOATING VEGETATED ISLANDS

FLLOATING VEGETATED ISLANDS ON EASTERN EDGE OF LAKE ARTHUR WILL BE USED TO REDUCE NUTRIENT CONCENTRATIONS IN THE LAKE ECOSYSTEM. ISLANDS WILL ALSO PROVIDE HABITAT FOR BIRDS, FISHES, AND OTHER WETLAND SPECIES.

IN ORDER THAT THE LAKE HAS WATER INTERCHANGE WITH THE SPECIFIC WALKER WILL BE BUILT AS A WALKER WITH A WALKER.



PROPOSED BIOSWALE PLANTS

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BIOSWALE SECTION B-B

THE INCLUSION OF A NEW BIOSWALE TO INTERCEPT NUTRIENT RICH STORMWATER AND DRAINAGE FROM EXISTING FIELDS, PLANT MATERIALS WILL BE SELECTED TO IMPROVE WATER QUALITY AND DISCHARGE AS A NUTRIENT BUFFER TO THE LAKE.



Phase 2: Long term goals

- ▶ Alter the slope surrounding the lake
 - ▶ Requires approval from various divisions
 - ▶ Shoreline Management Act
 - ▶ SEPA
 - ▶ Department of Ecology
 - ▶ City of Spokane
 - ▶ Etc.
 - ▶ Reduce Canadian geese numbers

Benefits:

- ▶ Ecosystem Services
- ▶ Environmental Education
- ▶ Ecological Connectivity and functionality
- ▶ Move from Designer ecosystem to Novel Ecosystem
- ▶ Aesthetic integrity

Friends of Lake Arthur

- ▶ Please find us and like our Facebook page:
Friends of Lake Arthur
- ▶ <https://www.facebook.com/lakearthur2016/?ref=bookmarks>



Sources:

- ▶ Lake Arthur Photo's Courtesy of Gonzaga University Archives, Stephanie Plowman

