



Masterpiece on the Mississippi



2007 • 2012 • 2013 • 2017

TO: Michael C. Van Milligen, City Manager

FROM: Gus Psihoyos, City Engineer *GS*

SUBJECT: Lower Bee Branch Creek Floating Island Project
CIP# 7201654, PROJECT# 4X0003

DATE: December 12, 2017

INTRODUCTION

The enclosed resolution provides for the acceptance of the construction contract for the Lower Bee Branch Creek Floating Island Project.

BACKGROUND

In October of 2010 the City Council passed Resolution 390-10 authorizing an application for Vision Iowa River Enhancement Community Attraction and Tourism (RECAT) grant funding specifically for amenities associated with the Bee Branch Creek Restoration Project. One of the amenities included is to construct a floating island system in conjunction with the construction of the Bee Branch Creek Restoration Project.

In April of 2011 the City Council passed Resolution 114-11 approving and authorizing the execution of the RECAT Grant Agreement.

The RECAT grant application and grant agreement include funding for a floating island to be constructed as part of the Bee Branch Creek Restoration Project, located within the 16th Street Detention Basin.

The proposed floating island system is a form of a wetland which will "bio-mimic" natural floating wetland systems invented by Nature. Vegetated with native plants, it is a beautiful, natural and sustainable eco-system which provides many benefits, from habitat restoration to water cleansing.

When a floating island is launched, a whole diverse eco-system is created which attracts life in all its forms, from microbes to nymphs, to butterflies, to fish, birds.... all the way up the food chain. Figure 1 shows the multitude of benefits provided by floating island systems.

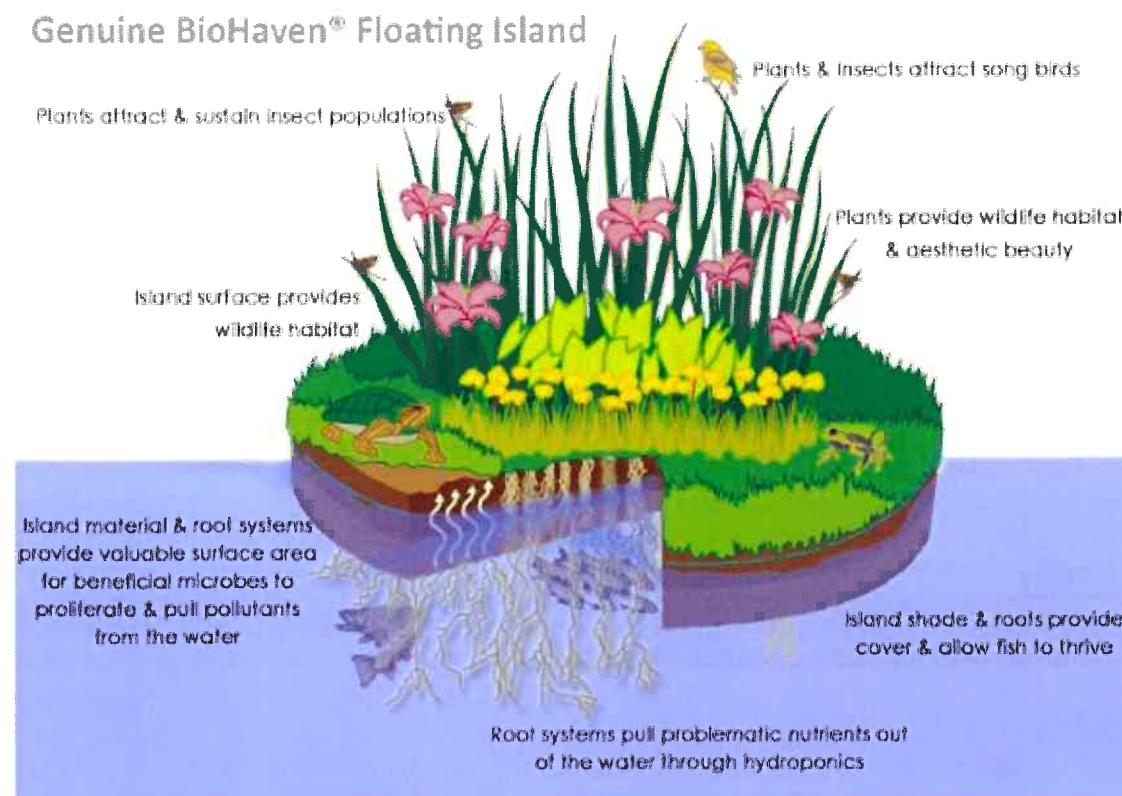


Figure 1. Benefits of a floating island system.

DISCUSSION

The Lower Bee Branch Creek Floating Island Project consisted of installing fourteen floating islands that vary in size from 70 square feet to 300 square feet in area. The total combined island area is 2,674 square feet. The islands were assembled, planted with native wetland plants, launched, and anchored to the bottom of the Bee Branch Creek between the 16th Street bridge and the 16th Street Detention Basin.

The Lower Bee Branch Creek Floating Island Project was completed by ENCAP, Inc. of DeKalb, Illinois in the final contract amount of \$176,045.00, which is 10.67% under the original contract of \$197,075.00. The reduced project cost was due to re-configuration of the anchor systems for each island. The revised anchor design resulted in less materials and easier installation.

BUDGET IMPACT

The project cost for the Lower Bee Branch Creek Floating Island Project is as follows:

| | Award | Final |
|---------------------------|----------------------------|----------------------------|
| Construction Contract | \$197,075.00 | \$176,045.00 |
| Contingency (10%) | 18,290.00 | 0.00 |
| Engineering | 30,500.00 | 34,893.71 |
| Total Project Cost | <u>\$245,865.00</u> | <u>\$210,938.71</u> |

The project funding summary is as follows:

| <u>CIP No.</u> | <u>Fund Description</u> | <u>Fund Amount</u> |
|----------------|--------------------------------------|--------------------|
| 7201654 | Bee Branch Creek Restoration Project | \$210,938.71 |

RECOMMENDATION

I recommend acceptance of the Lower Bee Branch Creek Floating Island Project improvements and establishing the final contract amount of \$176,045.00.

ACTION TO BE TAKEN

I respectfully request adoption of the attached resolution accepting the improvements, establishing the final construction contract in the amount of \$176,045.00, and authorizing the payment of the contract amount to ENCAP, Inc. for the Lower Bee Branch Creek Floating Island Project.

Attach.

Prepared by Deron Muehring

cc: Crenna Brumwell, City Attorney
Jenny Larson, Budget Director
Deron Muehring, Civil Engineer