

**1. Requested Motion:**

**Meeting Date: June 6, 2011**

Authorize \$30,000 to be transferred out of the Town Beach Nourishment Fund to support the acquisition of contractual services for several components of the Fort Myers Beach Vegetation Management Plan.

**Why the action is necessary:**

The Vegetation Management Plan is an integral part of the Interlocal Agreement with Lee County for the North End Beach Nourishment Project. The Vegetation Management Plan and implementation of the related vegetation program are part of the Town's obligation for the Beach Nourishment Project.

**What the action accomplishes:**

The Fund transfer enables Town Staff to acquire contract services to assist with the completion of the vegetation management plan and compliance monitoring.

**2. Agenda:**

- Consent
- Administrative

**3. Requirement/Purpose:**

- Resolution
- Ordinance
- Other

**4. Submitter of Information:**

- Council
- Town Staff
- Town Attorney

**5. Background:**

The Town of Fort Myers Beach is required to develop and implement a Vegetation Plan as part of the Interlocal Agreement with Lee County for the beach nourishment project at the north end of the island. A vegetation survey must be completed to document the existing vegetation and any planted beach vegetation along the length of the beach nourishment project as part of the Vegetation Management Plan. GIS services are also needed for training in GPS mapping and data management as related to vegetation compliance. The Funds transfer will enable the Town to acquire contractual services for the vegetation survey and GIS data management and training.

**6. Alternative Action:**

**7. Management Recommendations:**

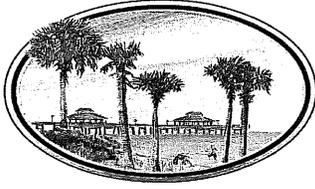
Approval

**8. Recommended Approval:**

Town Manager	Town Attorney	Finance Director	Public Works Director	Community Development Director	Cultural Resources Director	Town Clerk
						

**9. Council Action:**

- Approved
- Denied
- Deferred
- Other



## *Town of Fort Myers Beach*

### **Memorandum**

To: Terry Stewart, Town Manager

Through: Walter Fluegel, Community Development Director

From: Keith Laakkonen, Environmental Sciences Coordinator

Date: 05/24

Re: Funds transfer from Beach Nourishment fund for Town Vegetation Management

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I am requesting \$30,000 be transferred out of the Town Beach Nourishment Fund for several small projects. These funds will be utilized to implement the Fort Myers Beach Vegetation Management Plan. The Town vegetation plan is an integral part of the Interlocal agreement with Lee County for the current beach nourishment project at the north end of the island. The vegetation plan and management of the program is an obligation of the Town for the project.

The first project is a two phase vegetation survey to document the location of beach vegetation along the length of the beach nourishment project. The vegetation survey will result in information that is legally defensible for both the Town and the property owners since the vegetation management plan does have certain aspects which may require code compliance efforts in the future. The survey will document the location of existing vegetation and any planted beach vegetation. Both phases will document the location of the vegetation relative to property lines to determine compliance with the 75% linear width of property planting requirement.

The second project will be contractual services for GIS data management for vegetation and lighting compliance and staff training for GPS mapping.



## Town of Fort Myers Beach

### Memorandum

To: Terry Stewart, Town Manager

Through: Walter Fluegel, Community Development Director

From: Keith Laakkonen, Environmental Sciences Coordinator

CC: Peter Boers, Contracts Manager

Date: 05/18/2011

Re: Proposals for Town of Fort Myers Beach Vegetation Survey for the Estero Island Reach Restoration project

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On March 30, 2011, I solicited bids from four environmental consulting and survey firms for a vegetation survey. The survey is to document existing location of beach vegetation along the length of the beach nourishment project. The vegetation survey is necessary for the town to implement the Fort Myers Beach Vegetation Management Plan.

The same Scope of Work (attached) was provided to each firm to review and prepare a proposal and scope and fee estimate. The scope of work was prepared for two phases of the project. The first phase is a survey to document existing beach vegetation along the length of the nourishment project so the Town staff can determine how much vegetation will be required to be planted at each property to bring them in compliance with the Vegetation Management Plan. This first phase of the project was broken into two alternates. Alternate one was a survey of all existing vegetation along the length of the nourishment project with no regard and property lines or boundaries. Alternate two as a survey of the vegetation with reference to property lines and corners with the contractor determining the total vegetation needed for each parcel. Not all the firms bid both alternate one and alternate two. Johnson Engineering was the lowest bidder on both alternates and also exhibited a better understanding of the scope of work in their proposal. In addition, Johnson Engineering is a local firm that has a solid professional reputation.

<u>Firm</u>	<u>Phase One-Alternate 1</u>	<u>Alternate 2</u>
Johnson Engineering Inc.	\$2960	\$15,480
Bean, Whitaker, Lutz, & Kareh, Inc.	\$7500	\$15,500
Coastal Engineering Consultants Inc.	\$17,656	\$34,624

Coastal Planning & Engineering Inc.

\$7892

no bid provided

In my professional opinion, Alternate 2 will give the town a much more reliable survey and data set (which includes GIS Products for mapping). Alternate 2 will also be more legally defensible for both the Town and the property owners since the vegetation management plan does have certain aspects which may require code compliance efforts in the future. Alternate 2 will also result in extensive savings of staff time since the contractor will determine the amount of vegetation that exists and/or is needed to be planted on each parcel for compliance with the Vegetation Management Plan.

The second phase of the project is a survey to document the location of any planted beach vegetation. Since the second phase of the project is highly dependent on the number of easements signed for the nourishment project and the total amount of vegetation that will be required on each property as determined by the results of phase one, there was such a varied approach to the scope of work by all the firms that the bids are not comparable.

It is staff's request to authorize the Environmental Sciences Coordinator and the Contracts Manager to develop a professional services agreement for Johnson Engineering to conduct a vegetation survey for phase one Alternate 2. We will revise the scope of work to reflect a revised starting date since the original starting date was intended to be May 1.

### **Town of Fort Myers Beach Vegetation Survey**

This scope of work is to provide information to the Town regarding dune vegetation in the area of the beach nourishment project to determine total vegetation that each property must have to be compliant with the attached plan, the Fort Myers Beach Vegetation Management Plan (Plan).

Phase one of the project will be an initial beach vegetation survey. The contractor will survey the horizontal extent of the vegetation line of the beach along the beach nourishment project limits. The beach nourishment project begins at Bowditch Park to just south of the pier including the new county beach park south of the pier (Parcel STRAP 244623W3000130000). The contractor will begin their survey at the southern boundary of Bowditch Park and continue to the southern limits of the nourishment project. The survey will be conducted either as Alternate 1)- a survey of all the vegetation in the nourishment project area or Alternate 2)- a survey of vegetation on each parcel referenced to property corners.

For Alternate 1- the bid should itemize all aspects of the work. The contractor will survey all areas with and without native salt tolerant dune vegetation with no reference to property corners or property line. The vegetation line varies and is incomplete along the beach. The vegetation will be found between the mean high water line and any buildings or other structures. Vegetation will be considered to be greater than 20% coverage (e.g. Braun-Blanquet) of native salt tolerant dune vegetation greater than 10 foot deep (measured perpendicular to the ECL) and listed as "Vegetation". "Vegetation" is defined as such as sea oats, railroad vine, dune sunflower, bitter panicum, and other plants that typically compose a dune. Coconut palms, Floratam, and any non native vegetation will not be counted towards the 20% coverage. The length of each segment of vegetation shall be recorded. The contractor will also record areas of no vegetation and the total length of those areas and record those as "No Vegetation". Areas that have between 1% and 19% coverage of native salt tolerant dune vegetation will be recorded as "Additional Vegetation Needed". The contractor will only survey the actual outer vegetation line in areas where the vegetation is 10 foot deep or greater. If the vegetation area is less than 10 foot deep (measured perpendicular to the ECL) it will be surveyed as "additional vegetation needed" and the length of each of those segments shall also be recorded. The contractor will provide GIS files in NAD 1983 feet, Florida west projection to the Town at the completion of the project. The survey should be of sufficient accuracy that Town staff can approximate the linear width of beach-front on each property that has vegetation or no vegetation based upon property appraiser data. The ArcMap 9.0 compatible files with metadata (geo-database or shapefiles) will list "No Vegetation", "Additional Vegetation Needed" or "Vegetation" and the approximate linear footage of each segment surveyed. The Town will provide the contractor with locations of any known control points. The work must begin by May 1<sup>st</sup> 2011 and completed including delivery of all products within 30 days of purchase agreement.

For Alternate 2, the bid should itemize all aspects of the work including location of property corners and property lines relevant to the recorded Erosion Control Line (ECL) (Instrument # 5326682, Plat Book 70, Pages 25 through 39) in order to determine the percentage of linear beachfront footage of each

property that has vegetation. The vegetation line varies and is incomplete along the beach. The vegetation will be found between the mean high water line and any buildings or other structures. "Vegetation" will be considered to be greater than 20% coverage (e.g. Braun-Blanquet) of native salt tolerant dune vegetation such as sea oats, railroad vine, dune sunflower, and bitter panicum. Coconut palms, Floratam, and any non native vegetation will not be counted towards the 20% coverage. The contractor will also record areas of no vegetation and the total length of those areas on each property and record those as "No Vegetation". Areas that have between 1% and 19% coverage of native salt tolerant dune vegetation will be recorded as "Additional Vegetation Needed". The contractor will only survey the actual outer vegetation line in areas where the vegetation is 10 foot deep or greater. If the vegetation area is less than 10 foot deep (measured perpendicular to the ECL) it will be recorded as "additional vegetation needed". On properties that are determined to have less than 75% of the beach-front property width vegetated with beach vegetation, the contractor will determine approximately how many feet of vegetation would need to be planted to reach the 75% criteria. The contractor will determine which properties have greater than 75% linear beach front footage of property that have vegetation and record those as "no vegetation needed". The ArcMap 9.0 compatible files with metadata (geo-database or shapefiles) will list "No Vegetation", "Additional Vegetation Needed" or "Vegetation" and the approximate linear footage of each segment surveyed. The Town will provide the contractor with locations of any known control points. The work must begin by May 1<sup>st</sup> 2011 and completed including delivery of all products within 30 days of purchase agreement.

Phase two of the project will be to survey all newly planted areas of vegetation on the beach. For phase two the contractor will not be expected to submit an accurate bid until the completion of the planting portion of the nourishment project. The contractor should submit a bid based on Time & Materials as the complete scope of this project will not be known until the majority of the nourishment project has been completed. The newly planted areas will generally be strips of vegetation no more than 15 foot wide planted on properties that did not have any vegetation prior to the commencement of the beach nourishment project or had vegetation of an insufficient depth to satisfy the Plan. The total planted with vegetation to be surveyed will be determined by Town staff using the results of the phase one beach vegetation survey. The Town will provide a list of the areas where vegetation was planted including the approximate total linear footage planted for each property. The contractor will provide field surveys of the newly planted polygons on each property and relate with the property boundaries or relevant control points. The survey will provide coordinates with centimeter accuracy of all corners of each planted area which the Town will stake prior to survey. The work must be completed including delivery of all products within 30 days of notice to proceed from the Town. After completion of the work the contractor will deliver ArcMap 9.0 compatible files with metadata (geo-database or shapefiles) polygons comprised of the corner coordinates of beach planted area for the GIS maps in NAD 1983 feet, Florida west projection of the vegetation for each property to the Town. The polygons and coordinates must be of sufficient accuracy and detail for recording.