

## **EXPLANATION OF CONSENT AGENDA ITEM E.2.c.(18) October 28, 2015**

### **ITEM:**

Consideration of approving a purchase order to InoMedic (IHA) in the amount of \$51,200 for Canaveral Harbor Expansion post construction shoreline revetment environmental surveys, as required by regulatory permit (Noble/Hicks)

### **EXPLANATION:**

Background: As part of the Canveral Harbor Widening and Deepening pre-construction surveys and evaluations, a 2007 Port Canaveral Sea Turtle Foraging report was conducted. The survey included the 3,200 linear feet± of riprap revetment located on the north side of the harbor between the Middle and Trident Basins. The 2007 survey concluded that sea turtles foraged for algae along the rocks and that, after relocation of the revetment, the re-colonization of the riprap by algal communities would begin and rebound quickly. As part of the authorization of the Canaveral Harbor Expansion Widening and Deepening project, the Florida Department of Environmental Protection (FDEP) permit required follow-up documentation on the relocated segment of the revetment for similar surveys; one to be completed within approximately 30 days of completion of the shoreline revetment relocation work and one approximately one year post-construction.

The proposed fee includes both algal community survey and sea turtle survey for the two periods of time required by the permit. It is anticipated that all work will be completed in FY15/16. The proposed work will be performed on a time and material basis, using rates previously approved under the IHA (biological and ecological) continuing services contract.

**Funding Review by Finance (Pat Poston):** The total NTE amount of \$51,200 is included in the FY16 Capital Budget and no increase is required. [Budget item 1780 - WTB Widening Phase]

**Staff Recommends Approval**

**Prepared by Carol Noble, P.E.**



**InoMedic Revised Proposal Response**  
**For**  
**Canaveral Port Authority**  
**Marine Turtle Foraging Study**  
**October 13, 2015**

This is an updated statement of work per the request of Carol Noble on October 2, 2015. InoMedic (IHA) understands this project is part of the regulatory follow-up for the Canaveral Harbor Expansion (CHE) Environmental Resource Permit specific condition # 38, related to the to the presence of sea turtles and the condition of their forage (algal community). This effort will be similar to the 2007 study (Dial Cordy and Associates, Inc. and IRG) for the Section 203 study for the Canaveral channel widening and expansion.

The first assessments will be completed within 30 days of the completion of the shoreline revetment work, which is currently assumed to be in mid-October, (suggesting a survey by mid-November 2015). This assessment would be followed by a second, identical survey within 10 to 11 months of the first (no later than August 2016) followed by a final report by 30 September 2016.

The effort will involve the assessment of the forage (algal community) condition and abundance along the riprap (rock rubble) and surveys for sea turtles foraging within this same zone.

**A. Forage community assessment**

Macroalgae growing along the riprap in Port Canaveral supports the foraging habits of juvenile green turtles. We will assess the status of the colonization of the macroalgal community along the northern channel recently modified for the CHE project. We understand that much of the existing algal-laden riprap was left in place during the construction, it may have considerable establishment of macroalgae post construction.

The post construction assessment of the macroalgal community will provide the CPA with: (1) an estimate the macroalgal distribution and abundance and (2) identify the presence of invasive or introduced species.

Methods of data collection will incorporate those previously used in Port Canaveral by Dial Cordy (2007) and in the Trident Basin by Holloway-Adkins (2015). After a site visit, we anticipate using approximately 12 transects across a 1200 m zone (10 along the North Channel and two within the first 200 m of the adjacent Trident Basin west wall). Using this small section of the Trident Basin will improve our understanding of the macroalgae variation in the CPA area and allow the comparison to a highly detailed algal study performed in the Trident basin over the last several years (Holloway-Adkins 2015).

Transects will be set perpendicular to the shoreline from mean high water to the rock/sand interface. Due to the rugose nature of the riprap, a temporary chain transect line will be used with flags marking 20 cm intervals. A 0.25 m<sup>2</sup> quadrat of the substrate (rock) will be photographed at three (shallow, mid and deep) water depths. Following the photography, a 0.1 m<sup>2</sup> grab sample will be collected by a scraping method for species identification and subsample quantification. The analysis of the photographed quadrats will provide a qualitative comparison of macroalgal composition to the 2007 study. The grab samples will establish quantitative data for future comparisons of the macroalgal community.

## **B Marine turtle relative abundance and foraging surveys**

We reviewed surveys by IRG (Dial Cordy 2007) and will generally follow those visual transect methods of searching for turtles as described for the preconstruction phase of the Harbor widening. We will perform a reconnaissance survey of the post construction project area prior to final determination of transect site selection.

Repeated transects will be traversed from a moving boat and observers will record turtles sighted along these routes and attempt to determine behavior. Experience has shown that turtles are most often sighted at the surface and quickly disappear. To attempt to capture more observations of potential feeding, we will utilize the transect survey to discover or identify a few focal monitoring areas. Transect sections that result in relatively high incidences of turtles, will become focal zones. We will spend up to 15 minutes at each of these focal zones for more intensive and quiet search for foraging turtles below the surface. Historic turtle forage data from the Trident Basin (Holloway-Adkins 2015) indicates which zones below the water column along riprap are most used by turtles and therefore allow us to be more efficient in our search patterns. Surveys will occur as near in time as possible to the algal assessment survey.

### **Schedule:**

- Surveys: A and B will be conducted twice, November 2015 and August 2016.
- Data collation and analyses: December- February for first surveys, August for the final surveys
- Draft Report: September 15 2016
- Final Report: September 30 2016

**Deliverable:** A final report will summarize results of the algal and sea turtle information for the two time frames. It will include location of vegetation and turtle transects (maps), the number and location of turtle sightings, and “behavior” within each zone.



InoMedic Health Applications  
 6141 N. Courtenay Pkwy, Suite A  
 Merritt Island, FL 32953  
 IHA Contracts POC: Domingo Rivera Jr. C.A.P. (321) 867-5737  
 Technical POC: Jane Provanca (321) 867-2434

# Quote - Phase 1

10/13/2015

TO: Carol Noble; Canaveral Port Authority  
 445 Challenger Road Ste 301  
 Cape Canaveral, FL 32920  
 Email: cnoble@portcanaveral.com

Ecological Services - Phase 1
<b>Canaveral Port Authority Marine Turtle Foraging Study - Revised to complete within 2016 and to add second survey series within 10 months</b>
InoMedic (IHA) proposes to perform this effort on two fronts and each described in the attached detailed response updated on October 8, 2015. Each assessment is to occur twice and all surveys are now included in the pricing below to be completed with FY 16. One is the assessment of the forage (macro algal community) condition and abundance along the riprap (rock rubble), and the other is to survey for sea turtles foraging within this same zone. • Survey: A will be conducted in November 2015. • Data collation and analyses: December- February

Quote Summary - Phase 1			
<b>SubTask A. Algal community assessment</b>		<b>2016</b>	
<b>IHA Direct Labor</b>	<b>Rate</b>	<b>Estimated Hours</b>	<b>Estimated Cost</b>
Ecologist	\$ 71.22	120.00	\$ 8,546.40
Environmental Engineer	\$ 78.57	16.00	\$ 1,257.12
Senior Scientist	\$ 113.97	-	\$ -
Environmental Project Management	\$ 90.38	13.00	\$ 1,174.94
Project Administration	\$ 41.27	5.00	\$ 206.35
	<b>Total Labor</b>	<b>154.00</b>	<b>\$ 11,184.81</b>
<b>Estimated Other Direct Costs</b>			<b>\$ 2,800.49</b>
Consists of Boat, Dive Equipment Rentals and Miscellaneous Consumables			
<b>Total Subtask A</b>			<b>\$ 13,985.30</b>
<b>Subtask B. Marine turtle relative abundance and foraging surveys</b>		<b>2016</b>	
<b>IHA Direct Labor</b>	<b>Rate</b>	<b>Estimated Hours</b>	<b>Estimated Cost</b>
Ecologist	\$ 71.22	60.00	\$ 4,273.20
Environmental Engineer	\$ 78.57	-	\$ -
Senior Scientist	\$ 113.97	-	\$ -
Environmental Project Management	\$ 90.38	40.00	\$ 3,615.20
Project Administration	\$ 41.27	5.00	\$ 206.35
	<b>Total Labor</b>	<b>105.00</b>	<b>\$ 8,094.75</b>
<b>Estimated Other Direct Costs</b>			<b>\$ 1,790.93</b>
Consists of Boat and Miscellaneous Consumables			
<b>Total Subtask A</b>			<b>\$ 9,885.68</b>
<b>Total Estimated Cost</b>			<b>\$ 23,870.98</b>
<i>Payment Terms: Net 30 Days</i>			

**INOMEDIC HEALTH APPLICATIONS, INC. PROPRIETARY INFORMATION**

This proposal/quotation includes pricing data that shall not be disclosed outside the offeree and shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate this proposal/quotation. If, however, a contract is awarded to this offeror as a result of—or in connection with—the submission of this data, the offeree shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract.

This is an estimate only, not a contract.



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 Technical POC: Jane Provancha (321) 867-2434

## Quote - Phase 2

10/13/2015

TO: Carol Noble; Canaveral Port Authority  
 445 Challenger Road Ste 301  
 Cape Canaveral, FL 32920  
 Email: cnoble@portcanaveral.com

Ecological Services - Phase 2
<b>Canaveral Port Authority Marine Turtle Foraging Study - Revised to complete within 2016 and to add second survey series within 10 months</b>
InoMedic (IHA) proposes to perform this effort on two fronts and each described in the attached detailed response updated on October 8, 2015. Each assessment is to occur twice and all surveys are now included in the pricing below to be completed with FY 16. One is the assessment of the forage (macro algal community) condition and abundance along the riprap (rock rubble), and the other is to survey for sea turtles foraging within this same zone.
<ul style="list-style-type: none"> <li>• Survey: B will be conducted in August 2016.</li> <li>• Final data analyses for Phase 1 &amp; 2: August 2016</li> <li>• Draft Report: September 15 2016</li> <li>• Final Report: September 30 2016</li> </ul>

Quote Summary - Phase 2			
<b>Subtask A. Algal community assessment</b>			
	<b>2016</b>		
IHA Direct Labor	Rate	Estimated Hours	Estimated Cost
Ecologist	\$ 71.22	138.00	\$ 9,828.36
Environmental Engineer	\$ 78.57	16.00	\$ 1,257.12
Senior Scientist	\$ 113.97	-	\$ -
Environmental Project Management	\$ 90.38	13.00	\$ 1,174.94
Project Administration	\$ 41.27	5.00	\$ 206.35
	<b>Total Labor</b>	<b>172.00</b>	<b>\$ 12,466.77</b>
<b>Estimated Other Direct Costs</b>			<b>\$ 2,377.13</b>
Consists of Boat, Dive Equipment Rentals and Miscellaneous Consumables			
<b>Total Subtask A</b>			<b>\$ 14,843.90</b>
<b>Subtask B. Marine turtle relative abundance and foraging surveys</b>			
	<b>2016</b>		
IHA Direct Labor	Rate	Estimated Hours	Estimated Cost
Ecologist	\$ 71.22	80.00	\$ 5,697.60
Environmental Engineer	\$ 78.57	-	\$ -
Senior Scientist	\$ 113.97	-	\$ -
Environmental Project Management	\$ 90.38	53.00	\$ 4,790.14
Project Administration	\$ 41.27	5.00	\$ 206.35
	<b>Total Labor</b>	<b>138.00</b>	<b>\$ 10,694.09</b>
<b>Estimated Other Direct Costs</b>			<b>\$ 1,790.93</b>
Consists of Boat and Miscellaneous Consumables			
<b>Total Subtask A</b>			<b>\$ 12,485.02</b>
<b>Total Estimated Cost</b>			<b>\$ 27,328.92</b>
<i>Payment Terms: Net 30 Days</i>			

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This is an estimate only, not a contract.