Further Revised RESTORE Act Ecosystem Restoration Project Proposals

for consideration in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan 2012 – Revision Date January 19, 2013

<table>
<tr><td colspan="6">Contact Information: Roy R. Lewis III, PWS, President, Coastal Resources Group, Inc. (CRG) (Federal 501(c)3 Not-For-Profit), 813-505-3999, lesrrl3@aol.com, POB 5430, Salt Springs, FL 32134</td><td>Date of Submittal: October 7, 2012 REV January 19, 2013</td></tr>
<tr><td colspan="6">Name of Project: Fruit Farm Creek Mangrove Restoration Project</td><td>Org and Rank: CRG #1</td></tr>
<tr><td colspan="7">Project Description: Total project size is 1,025 acres. The project would restore historical hydrologic connections across CR 92 in Collier County to restore 64 acres of dead mangroves, permanently prevent future immediate death of 161 acres of severely stressed mangroves, and conserve and forestall death of an additional 800 acres of mangroves until further work could be undertaken (During Phase 3 not described here). Total restored or conserved: 1,025 acres.</td></tr>
<tr><td colspan="7">Project Location: Rookery Bay National Estuarine Research Reserve (RBNERR), Collier County, Florida, County Road 92 (CR 92 also known as San Marco Road) approximately one mile west of the town of Goodland (Township 52 South, Range 26 East, and primarily Sections 14 and 15 but also portions of Sections 10, 11, 13) between Latitude 25.9397 and 25.9242, Longitude 81.6552 and 81.6866 (See Figure 1-3).</td></tr>
<tr><td colspan="3">Responsible Party: CRG</td><td colspan="4">Partners: RBNERR</td></tr>
<tr><td colspan="2">NEP: Charlotte Harbor</td><td colspan="2">Project Cost: $1.94 million</td><td colspan="3">Dollars Needed:$1.4 million</td></tr>
<tr><td colspan="3">Start: September 2012 Phase 1A completed (See Figure 4)</td><td colspan="4">Completion: December 2015</td></tr>
<tr><td colspan="7">Status of Project Design and Permitting: Designed and fully permitted</td></tr>
<tr><td colspan="7">What Date or Year could Construction Feasibly Begin: Phase 1A has been completed. Further phases could begin with two-months of funding during early 2013. Construction drawings need to be prepared and the work bid and awarded for construction to begin</td></tr>
<tr><td colspan="7">Your Proposed Timing of Funding (given permits, phasing, staging, etc.)</td></tr>
<tr><td>FY</td><td>12/13</td><td>13/14</td><td>14/15</td><td>15/16</td><td>16/17</td><td>17/18</td><td>Total</td></tr>
<tr><td></td><td>$500, 000</td><td>$500,000</td><td>$400,000</td><td></td><td></td><td></td><td>$1.4 million</td></tr>
<tr><td colspan="7">Quantify Environmental Results and How to Measure Them: Quantitative monitoring of mangrove recovery through hydrologic monitoring would occur along with quantitative monitoring of plant recovery in fixed plots and fish sampling and invertebrate sampling within these same plots or adjacent reference areas. See attached narrative for details.</td></tr>
<tr><td colspan="7">Economic Benefits (including ecosystem services): $5,000 per acre restored or preserved = $5,125,000</td></tr>
<tr><td colspan="7">Estimated number of Jobs Created or Preserved: 10. Five full time three years, five part-time three years.</td></tr>
<tr><td colspan="7">How much Habitat will be restored and conserved?: 1,025 acres</td></tr>
<tr><td colspan="7">Quantify pollutant reductions:</td></tr>
<tr><td colspan="7">What living coastal/marine resources will be improved and by how much?: Mangrove forests and associated tidal creeks totaling 1,025 acres through the restoration of 64 acres of dead mangroves, permanent prevention of future immediate death of 161 acres of severely stressed mangroves, and conservation and forestalling the death of an additional 800 acres of mangroves</td></tr>
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until further work could be undertaken (During Phase 3 not described here).

How will community resilience be enhanced? Improved resilience to sea level rise due to restored hydrology and health of mangroves to allow for better natural increases in soil and plant elevations over time as sea level rises within the 1,025 acre project area.

Additional Justification: The project will restore fisheries habitat for many fish and wildlife species. Mangrove and estuarine habitats provide critical nursery areas for a number of larval and juvenile finfish and shellfish species of commercial and recreational importance. Many adult fish species take shelter and feed within mangrove habitats as well. Some fish species that will benefit from this project include the endangered fish species the smalltooth sawfish (*Pristis pectinata*) which is reported at its smallest sizes using shallow (<2.4 m) protected mangrove areas, and important recreational and commercial fish and shellfish species such as snook (*Centropomus undecimalis*), sheepshead *(Archosargus probatocephalus),* mangrove snapper (*Lutjanus griseus*), tarpon (*Megalops atlanticus),* red drum (*Sciaenops ocellatus*), spotted seatrout *(Cynoscion nebulosus),* stone crabs (*Menippe mercenaria),* blue crabs *(Callinectes sapidus),* pink shrimp *(Farfantepenaeus duorarum*) and oysters (*Crassostrea virginicus).* An estimated 75% of the game fish and 90% of the commercial fish species in south Florida depend on mangrove systems.

Restoration of the mangrove die-off areas and the associated mangroves and estuarine system will provide additional foraging and roosting areas for shore and wading birds such as the roseate spoonbill (*Platalea ajaia*), frigatebird (*Fregata magnificans*), double-crested comorant (*Phalacrocorax auritus*), great blue heron (*Adrea herodias*), snowy egret (*Egretta thula*), green heron (*Butorides virescens*), reddish egret (*Egretta rufescens*) and migratory birds such as the brown pelican (*Pelecanus occidentalis*).

Add any photos or maps that explain project: