

**SECTION 7**  
**RECOVER EVALUATION**

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### **RECOVER REGIONAL EVALUATION REPORT (Draft) Southern Golden Gate Estates Hydrologic Restoration Project**

Prepared by the RECOVER Regional Evaluation and Water Quality Teams  
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#### **EXECUTIVE SUMMARY**

One of the primary missions of RECOVER is to work with the PDTs to evaluate (through predictive modeling) and maximize the contribution made by each project to the system-wide performance of CERP. With this mission RECOVER prepared a Regional Evaluation of the final three proposed project alternatives for the Southern Golden Gate Estates (SGGE) Hydrologic Restoration Project. The purpose of this regional evaluation is to: 1) inform the PDT of the compatibility of proposed project alternatives with regional CERP restoration goals and performance expectations, 2) identify improvements for project performance that would improve its regional performance, and 3) provide decision-makers required information regarding regional performance expectations of the SGGE project.

This evaluation compares the three project alternatives to performance expectations of the Comprehensive Plan (Alternative D13R) by contrasting the alternatives to the Future Without Project conditions and against restoration targets. It should be noted that this regional evaluation is unusual for RECOVER because the evaluation was conducted out of sequence, i.e., the evaluation was conducted after selection of a preferred plan; therefore, the regional evaluation was not taken into consideration when selecting the preferred plan. This altered sequence was due to an expedited schedule for project completion. Also, the regional evaluation conducted for this report was performed without benefit of regional modeling results since the SGGE project is hydrologically isolated and cannot be simulated by the regional landscape models. Consequently, this evaluation is based on the best professional judgment of an interagency team of RECOVER evaluators using a local project hydrologic model (MIKE SHE).

**Consistency with Objectives of the Comprehensive Plan** – The planning objectives developed for the SGGE project are consistent with the objectives of the Comprehensive Plan. The planning objectives developed for the SGGE project were developed using both the broad CERP goals and objectives and the more defined regional and site-specific restoration objectives of hydrologic restoration.

**Consistency with Performance Measures of the Comprehensive Plan** – There is general compatibility between the project-level performance measures developed for the SGGE Project and the system-wide performance measures of the Comprehensive Plan.

**Project Performance – Comparison to the Comprehensive Plan and Future Without Conditions** – Based on information provided by the PDT, RECOVER has concluded that the three SGGE Project alternatives (Alternatives 3D, 6 and 12) will meet or exceed the three performance expectations outlined in the Comprehensive Plan. The performance expectations that will be met include hydrologic restoration, groundwater recharge, and water quality improvements to coastal estuaries. Alternative 3D outperforms Alternatives 6 and 12 in achieving performance expectations. The combination of a restored hydrologic regime, a restored fire regime, and an appropriate exotic vegetation control program can be expected to return most of the SGGE to its pre-development character, including the plant communities and wildlife that it previously supported. However, it should be recognized that the full benefits of the restoration process would take many decades to be realized.

If none of the SGGE alternatives are implemented, conditions will continue to decline. By 2050, upland conditions would dominate virtually the entire project site and no wetlands larger than 25 acres would exist, with the exception of coastal marshes. The continuity of natural habitats between government preserved land resources would be lost. Without restoration of sheetflow and the elimination of point source discharges to Faka Union Bay, continued water quality degradation caused by salinity fluctuations would result in further loss of species diversity. Forage fish populations would continue to decline and recreational fishing would also suffer. Oyster reefs would be eliminated.

**System-Wide Performance Expectations** – From a regional perspective RECOVER has concluded that the three SGGE project alternatives would support the restoration of the three essential characteristics of the south Florida ecosystem prior to development.

<b>Pre-development Ecosystem Characteristic</b>	<b>SGGE Project Regional Benefit</b>
A hydrologic regime that featured dynamic water storage capabilities and sheetflow to coastal estuaries	Increases the storage of surface water in wetlands and allows the volume and timing of freshwater flows to the estuaries to occur in a more natural manner
A large spatial scale	Continuity of natural habitat would be expanded by combining the SGGE restored lands with surrounding natural areas; all managed by the same natural resource agency
Heterogeneity of natural habitats	Improves the ecological health and habitat characteristics of three estuaries by reducing salinity fluctuations from a single point source discharge

**Conclusions** - RECOVER has concluded that the three SGGE Project alternatives (Alternatives 3D, 6 and 12) will meet or exceed the three performance expectations outlined in the Comprehensive Plan. Alternative 3D can be expected to restore a more natural pattern of wetland hydroperiod and freshwater flow to estuaries than the present hydrologic regime. Alternatives 6, 12, and 3D all provide significant improvement over the Future Without Project Condition and would contribute to restoration of the estuaries and expansion of the continuity of natural habitat by combining the restored lands of the SGGE project site with surrounding natural areas.

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