Dispersed Storage

Purpose and General Description: Partnership projects on public, private, or tribal lands that are intended to store or treat local basin or regional water. Primary goals of these projects are water retention/detention, load reduction, and/or onsite hydrologic restoration. Dispersed storage projects vary greatly in regards to size, design, benefits, and funding/costing mechanism.

Physical Description: Shallow storage and treatment features including ditch plugs, culverts with flashboard risers, minor impoundments, etc.

General Description of Operations: These features can be designed and operated numerous ways. Desired benefits will dictate design and operational intent. Some projects are designed to maximize water quality benefits, while other features are designed to maximize evapotranspiration (ET) and/or to modify the local hydrograph and provide base flows to the downstream system.

Hydrologic Performance: Hydrologic performance is dictated by operational intent as described above. Generally speaking, these projects attempt to restore more natural hydrology within a watershed. Since these projects involve shallow footprints, they have the potential to increase ET which may or may not be desirable depending on prevailing weather conditions. These projects are not of sufficient scale or appropriate location to assist with dry season carryover flows to the Everglades.

Water Quality Performance: There is high uncertainty in predicting water quality at this time. Water quality performance will be dependent on individual project design/intent as described above.

Environmental / Ecological Advantages or Benefits: In many cases, these projects are designed to recreate the natural system/landscape and its associated processes. Therefore it is anticipated, that these projects would result in more desirable ecological/environmental conditions within the footprint itself than larger, regional scale projects

Environmental / Ecological Impacts or Concerns: These projects are intended to avoid wetland or Threatened &Endangered Species (T&E) impacts, so siting and design of these projects will focus on avoiding these impacts or concerns.

Economic / Recreational Advantages or Benefits: These projects involve partnerships on public, private, or tribal lands. This approach allows the land to stay in existing ownership, which minimizes land acquisition requirements and potential impacts to tax rolls and local communities. Recreational opportunities would be dependent upon the ownership and public accessibility to the project area because most of these projects would be constructed on privately owned lands.

Economic / Recreational Impacts or Concerns: Limited information exists regarding the implementation costs for dispersed storage. Payment structure for the payment for services type of dispersed storage projects (e.g., FRESP) has not been developed. Therefore at this time,

it is difficult to determine the costs-benefits relationship of dispersed storage or to compare dispersed storage costs-benefits to other project types.

O&M Considerations (if any): In most cases, O&M for these projects would be the responsibility of the landowner. For projects on public lands, O&M would be the responsibility of SFWMD or other government agency.

Uncertainty Concerns: Uncertainties exist related to costs and costs-benefits. Currently only able to model two different types of dispersed storage projects, need additional information so that the full suite of project types can be modeled/evaluated. Site specific nature of these types of projects makes it difficult to accurately model a large number of these types of projects within a watershed.