

State of South Carolina

GOVERNOR HENRY McMASTER



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South Carolina Floodwater Commission

ECONOMIC DEVELOPMENT TASK FORCE

BACKGROUND

This task force is charged with identifying and acting upon the numerous economic opportunities that exist associated with an increase in water from river systems and along the South Carolina coast line. Expansion of lake systems including canals and ramps in areas such as Marion County through river diversions could open opportunities for lake and/or canal watersports and recreation while providing for potential electricity generation. Canal systems along the coast and in the low country could have the potential to utilize underused and low-lying areas for tourist/economic development.

Development of targeted activities and programs that work to improve the economic wellbeing and quality of life of a community by building local wealth, diversifying the economy, creating and retaining jobs, and building the local tax base will be explored relative to water use.

Dependent on tourism stimulation, water control efforts may be designed for riverfront activities and recreation such as crew and “blueway” canal access. A blueway is similar to a hiking trail. Physical and geo-positioned markers guide trail users through the waterways. An ideal blueway trail also includes an abundance of scenery and wildlife as well as easy canoe and kayak access.

Increased risk and frequency of extreme flooding, and the trend toward increased urbanization requires water services to function differently and to utilize infrastructure in a more productive, efficient and resilient way. Thus, moving away from a fragmented and narrow perspective of water planning and management is essential to a more integrated multi-dimensional systems perspective. Much of the discourse on flooding currently focuses on major infrastructure solutions, that is, dam infrastructure to manage rivers and floodplains. This flood management effort now includes a combination of dams and modern infrastructure, extensive water efficiency measures and now desalination.

Desalination plants, once constructed and given relatively low marginal costs, could be used to help optimize the water resources system in a city for multiple purposes. The key criteria for the bulk water supply system are water security, system reliability, mitigating flood risk, environmental flows to river, and acceptable water quality.

One of the major challenges during major floods is obviously not the lack of water, but the quality of the water that is used for the drinking water treatment. Most water supplies are relying on surface water (generally dams catching run-off from more or less protected environments). Major rainfall, then, has a very rapid and often highly detrimental effect on the water quality in the rivers and channels flowing into the dam/basins. Further challenges are created when the water extraction points for the drinking water plants are not directly at the dams/basins, but from rivers downstream of the dams/basins. The direct inflows into these rivers are usually even more heavily loaded with sediments and other pollutants than the dam water itself.

The latter situation is exactly what creates a potentially serious water supply shortage during flood events. Large amounts of runoff or “dirty water” pose a risk to surge turbidity levels exponentially, drastically reducing the drinking water production capacity. With water treatment plants operating effectively, the water distribution grid will enable the supply of treated water. Desalination plants would provide full production to add further supply. Without an additional capacity through a desalination plant and a grid’s ability to source water where available across the region and supply it to demand areas, a significant fraction of water supply is at risk.

Together, the parallel of water treatment and desalination holds potential for alternative and independent drinking water production and capital opportunity. Perhaps, with stimulation of independent drinking water production, bottling measures push to develop a more responsible plant-based alternative to traditional plastic packaging.

The new 100% bio-based PET bottle is based on technology developed by biofuels and biochemical company Virent, Inc., Madison, Wis., (www.virent.com) which enables production of BioFormPX (paraxylene) from beet sugars instead of fossil fuels. Paraxylene is the key raw material used to produce PTA (purified terephthalic acid) and DMT (dimethyl terephthalate) feedstocks, which account for the other 70% of bottle-grade PET.

OBJECTIVES

- Identify economic opportunities associated with an increase in water from river systems and along the South Carolina coast line.
- Expansion of lake systems through river diversions could open opportunities for lake and/or canal watersports and recreation.

- Provided potential for electricity generation.
- Tourism stimulation through water control efforts designed for riverfront activities and recreation such as crew and “blueway” canal access.
- Utilize underused and low-lying areas for tourist/economic development.

DELIVERABLES

Inception of economic opportunities associated with an increase in water from river systems and along the South Carolina coast line.

Develop a Local Economic Development (LED) Strategy. This process ensures that all major stakeholder groups are given the opportunity to define what is to be achieved, how it is to be achieved, who will be responsible, and the timeframes associated with the implementation of the LED strategy.

Implement the LED Strategy. Ongoing monitoring and evaluation of specific project outcomes ensures that the strategy continues to lead to the achievement of the LED vision, goals and objectives.

TIME FRAME

1Q '19 Development of stakeholder involvement.

1Q'19 Organization of resources.

2Q'19 Conduct assessment of current economy – Assess access points for water control inception strategy.

2Q'19 Arrive at shared economic vision.

3Q'19 Strategize and implement economic opportunities associated with an increase in water control efforts from river systems and along the South Carolina coast line to maximize potential for development.