



MEMORANDUM

Development Services Department

TO: A. Jerome Fletcher II, ICMA-CM, MPA, City Manager

THRU: Jason Yarborough, ICMA-CM, Deputy City Manager

THRU: Alaina Ray, AICP, Development Services Department, Director

THRU: Lori Barnes, AICP, CPM, Development Services Department, Deputy Director

THRU: Stefan Kalev, MS, Development Services Department, Natural Resources Manager

FROM: Shanell Bosch, Development Services Department, Environmental Planner I

DATE: May 1, 2025

SUBJECT: Warm Mineral Springs – Outstanding Florida Spring Designation

Introduction

Warm Mineral Springs (WMS), located in North Port, Florida, is renowned for its warm waters, which attract numerous visitors and residents each year. The therapeutic properties of Warm Mineral Springs' waters make it a popular destination for relaxation and health benefits. Furthermore, the area provides habitat for wildlife, such as gopher tortoises (*Gopherus polyphemus*) and provides critical habitat for manatees, particularly during the cooler months. Historically, Warm Mineral Springs has been a site of significant archaeological interest, with numerous artifacts uncovered that demonstrate its long-term use by ancient peoples. The springs are located within the Myakka River Basin, which forms part of the Southern West Central Florida Groundwater Basin spanning approximately 5,000 square miles.

Background

Spring Magnitude

The flow rates of springs are categorized by magnitude based on their average discharge in cubic feet per second (CFS). First-magnitude springs discharge 100 CFS or more, second-magnitude springs range between 10 and 100 CFS, and third-magnitude springs fall between 1 and 10 CFS. WMS is classified as third-magnitude, with a flow rate approaching the higher end of the range and comparable to a low second-magnitude spring under specific conditions.

Florida Spring and Aquifer Protection Act

The Florida Springs and Aquifer Protection Act aims to safeguard and restore Outstanding Florida Springs, currently comprising 24 first-magnitude and six second-magnitude springs. Basin Management Action Plans (BMAPs) under the Act outline phased pollutant reduction targets over 20 years, ensuring regular progress benchmarks. Amending the Act to designate Warm Mineral Springs (WMS) as an Outstanding Florida Spring would require considerable legislative support from adjacent municipalities and counties. While an individual municipality may initiate the proposal, success would depend on coalition-building and broad stakeholder



MEMORANDUM

Development Services Department

consensus. Any potential BMAP area determined by the Florida Department of Environmental Protection (FDEP) would likely extend beyond North Port's boundaries.

Outstanding Florida Spring Designation Overview

Florida is home to over 700 springs, but only 30 qualify for the Outstanding Florida Springs designation. Established in 2016 under the Florida Springs and Aquifer Protection Act, this distinction applies exclusively to first- and second-magnitude springs, recognizing their ecological and cultural significance. While WMS does not currently meet OFS criteria, it remains an integral part of the region's ecosystem and heritage. An OFS designation introduces stricter regulations aimed at preserving water quality, including nutrient management strategies, permitting requirements for development, and water use restrictions to prevent aquifer depletion.

Basin Management Action Plan (BMAP)

BMAPs are strategic frameworks by FDEP designed to restore water quality in significant water bodies, including OFSs. They aim to reduce pollutants based on Total Maximum Daily Loads (TMDLs) and incorporate enforceable measures like permit limits, best management practices (BMPs), and infrastructure enhancements for wastewater and stormwater systems. Effective implementation requires collaboration with local stakeholders. If WMS were designated as an OFS, a BMAP could impact neighboring communities like North Port, Venice, Sarasota, Englewood, and Port Charlotte. It could alter water usage policies, agricultural practices, and development regulations, possibly requiring enhanced onsite sewage systems for new residential development.

Priority Focus Areas

Priority Focus Areas, previously referred to as Spring Protection Zones, are designated regions identified through groundwater travel time models and impact assessments as areas most likely to affect spring water quality. These areas play a crucial role in guiding BMAP project funding and development, while remaining subject to adoption by the DEP.

- **Identification of Pollution Sources:** This encompasses both point and nonpoint sources, including urban turfgrass fertilizer, agricultural fertilizers, septic systems, wastewater treatment facilities, livestock waste, and stormwater systems.
- **Project Listings:** A comprehensive list of projects and programs designed to implement the Total Maximum Daily Load (TMDL) for nutrients.
- **Project Prioritization:** Each project must be ranked, with planning-level cost estimates, completion dates, and anticipated nutrient reductions included.
- **Financial Assistance:** Disclosure of available funding sources from the Department of Environmental Protection (DEP), water management districts, or other entities for each project.
- **Remediation Plans:** Outlining remediation for onsite sewage treatment systems (OSTDS) that contribute significantly to nitrogen pollution, if required, to achieve the Total Maximum Daily Load (TMDL).
- **Best Management Practices** adopted by rule.

Minimum Flows and Levels (MFLs)



MEMORANDUM

Development Services Department

MFLs are a requirement that direct Florida's water management districts to establish flow and water level thresholds for springs, rivers, lakes, and other waterways. The goal is to prevent significant harm to these ecosystems caused by excessive groundwater withdrawals. If a water body is projected to fall below its established MFL, a recovery or prevention strategy must be implemented to manage water use and mitigate impacts. MFLs are determined through scientific assessments that consider hydrology, ecology, and water availability. They play a crucial role in water resource management and often involve extensive data collection, modeling, and stakeholder collaboration.

Opportunities

An OFS designation may enhance water quality protections and promotes the maintenance of pristine conditions while allowing managed development. However, it is important to note that the designation does not guarantee water quality improvements on its own. Instead, if water quality declines, the program mandates the implementation of a Basin Management Action Plan (BMAP) to restore standards within 20 years, with evaluations at 5, 10, and 15-year intervals to ensure accountability and continuous progress. Restoration strategies under these plans may include stricter permit limits for wastewater facilities, land conservation initiatives, public education efforts, upgrades to wastewater treatment and stormwater infrastructure, and improved agricultural practices. Designating Warm Mineral Springs as an OFS and applying a BMAP framework could potentially yield environmental benefits, such as enhanced water quality, quantity, and restored habitats, which would positively affect ecosystems and recreational opportunities. Additionally, amendments to the Florida Springs and Aquifer Protection Act could foster regional cooperation, shared environmental goals, and increased public engagement in conservation efforts across the springs basin.

Challenges

While an OFS designation offers environmental advantages, it also may impose stricter regulations that present challenges for municipalities. Enhanced permitting requirements, nutrient management strategies, and water use restrictions necessary to prevent aquifer depletion can complicate water supply management and development policies. Proposing a city-level amendment to the Act may have significant implications for neighboring municipalities and counties, as local ordinances and policies would need to align with the updated regulations, potentially requiring additional resources for monitoring, enforcement, and overall compliance. Furthermore, if assessments indicate that septic systems within the Warm Mineral Springs Basin are failing, the BMAP may mandate costly repairs or a transition to a central sewer system, with funding pressures on both city and county budgets. The complex regulatory landscape necessitates extensive collaboration among stakeholders—including residents, businesses, and local government entities—to effectively coordinate legal and administrative efforts, a process that can be both challenging and resource-intensive.

Key Considerations

On April 15, 2025, staff from the City's Natural Resources Division met informally with the Florida Department of Protection's (DEP) of Water Resource Management. Five DEP representatives provided insights into the OFS



MEMORANDUM

Development Services Department

review and monitoring process, discussing key considerations related to Warm Mineral Springs (WMS) and reviewing the background of the 2016 Springs and Aquifer Protection Act and OFS designation.

The discussion focused on potential concerns and observed changes within the WMS system. A central question emerged: What is the intended outcome of an OFS designation for the City? Specifically, which issues would such a designation address? It was emphasized that an OFS designation alone does not guarantee enhanced protection; its effectiveness depends on the presence of an impairment issue (WMS is not currently classified as impaired) and the tools available to remedy it. For instance, the statutory mandate requires water management districts to establish minimum flow levels for springs and waterways, triggering recovery strategies to limit groundwater extraction if ecosystems drop below critical thresholds. Currently, no such strategy is required for WMS.

While an OFS designation may enhance awareness and regulatory oversight, it does not automatically yield increased funding or regulatory benefits. Moreover, use of any funding would be limited to water quality or quantity. In addition, the OFS designation introduces new obligations - such as BMAP and MFL requirements, including potential activity restrictions (i.e. no swimming), and wastewater prohibitions. These could incur costly improvements without necessarily ensuring enhanced protection for land use, infrastructure, or recreational opportunities. Some stakeholders may resist these regulatory measures due to its potential financial burden, especially if current data do not indicate critical water quality concerns. Moreover, the City retains the option to implement its own local-level regulations to address environmental issues independently, thereby avoiding the additional requirements and potential costs associated with the BMAP framework.

Alternative Options for Protection Measures

Potential local options exist that can be tailored to the environmental challenges and specific goals of the community. One targeted approach is to secure a conservation easement on the 60 acres adjacent to Warm Mineral Springs, which the City is already pursuing. This easement would help restrict future development on this critical land, ensuring that the natural environment is preserved while maintaining the historical and cultural significance of the spring.

Other local initiatives might include pursuing grant funding opportunities to facilitate resilience-based water quality improvements on a local level to meet these goals. Federal grants for infrastructure or disaster relief, combined with collaborations with agencies such as the FDEP, Southwest Florida Water Management District (SWFWMD), USGS, and the Department of Commerce, can further support these locally-driven efforts.

Overall, these flexible, localized measures can be implemented based on the evolving environmental challenges and the specific preservation goals for Warm Mineral Springs.

Discussion

Since the enactment of the Florida Springs and Aquifer Protection Act, the Outstanding Florida Springs (OFS) list has been a key tool for protecting vital water resources. However, many municipalities prefer to handle water resource protection locally rather than following a mandated state program. In the case of Warm Mineral Springs, an OFS designation would require a review of its ecological, historical, and regulatory aspects. Because it is a



MEMORANDUM

Development Services Department

third-magnitude spring, it might not meet the criteria prioritized for higher magnitude springs, which typically have higher flow rates and are deemed more critical. Financial challenges also come into play since the designation alone does not guarantee extra funding - state grants are generally available regardless, and managing a designated OFS could mean extra costs for the City, including the need for additional oversight by agencies like the FDEP or matching funds for federal grants.

Moreover, the strict regulations tied to an OFS designation may impose unanticipated and unintended restrictions and add financial burdens on local stakeholders, particularly if current data does not show significant water quality issues. In contrast, local protection measures—such as conservation easements and enhanced historical designations—could offer greater flexibility while still preserving the spring. Clearly defining the environmental objectives and concerns for Warm Mineral Springs is imperative to develop a comprehensive approach that balances environmental protection, economic realities, and the spring's historical significance for the benefit of the City.

Conclusion

Warm Mineral Springs offers unique contributions to Florida's natural heritage with its therapeutic waters and vital manatee habitat. There are various factors that may influence North Port's approach to protecting the spring, and these should be carefully considered. For example, its classification as a third-magnitude spring may limit its potential for an OFS designation. Furthermore, it was noted that the designation alone does not secure extra funding, as many grant opportunities remain available regardless. Natural Resources Staff determined that local-level policies with clear objectives can offer comparable benefits while providing significantly greater flexibility to address present and future challenges of the WMS. Tailored measures, such as conservation easements and mindful development practices, can safeguard the spring's unique values without imposing potential fiscal burdens. This approach may enable adaptable solutions that align with community goals, ultimately ensuring WMS protection for present and future generations.