



March 27, 2024

City of Nehalem
P.O. Box 143
Nehalem, OR 97131

Attn: City Manager, Lori Longfellow

Re: Water Master Plan Amendment and Moratorium Removal

Dear Ms. Longfellow,

This memorandum is intended to provide the engineering insight to the proposed modification of the City's Water Master Plan, Nehalem Development Code and Nehalem City Code in regards to the required Fire Flow for new developments. This letter will refer to the Memorandum from Carrie A. Richter, Contract City Attorney, titled "Staff Report for Ordinance No. 2024 – 02 Amendments to the City's Minimum Fire Flow Standards".

As we have previously explained throughout this moratorium process, safe and adequate water service availability and fire protection have always been and will continue to be our goal as the City engineer. The priority scheme set forth in the Nehalem City Code provides for first serving existing and future customers within the city limits. The last priority is for serving new development outside the city but within the urban growth boundary. New customers remain responsible for any upsizing or expansion of the city water system that might be necessary to serve their development. The following information provided in this memorandum outlines the justification and rationale for the modifications of the required fire flows and new allowances made for automatic sprinkler systems.

These proposed revisions to the Water Master Plan, and the corresponding amendments to the Nehalem City Code and Nehalem Development Code, will continue to further the health, welfare or safety of the water clients of Nehalem for the following reasons:

1. The reduction of the minimum fire flow for a single-family home in combination with an automatic sprinkler is an allowed alternate in several of the Nation's leading fire protection services. Both the Oregon Fire Code and the NFPA allow for this alternate when 1000 GPM fire flow is not available at the home site.
2. For single family homes, the 350 gallons per minute and the addition of automatic sprinkler systems enhances the safety of the residence and those structures around it. In discussions with adjoining Fire Departments on the Oregon Coast, the automatic sprinkler system can be very effective, hitting the fire before the room or area becomes engulfed in flames.

An automatic sprinkler system is a highly effective tool in fire prevention and control. By detecting and activating at the first sign of a fire, the system can quickly douse the flames before they have a chance to spread and consume the entire room or area. This swift

response time can greatly reduce the amount of damage and loss caused by a fire, as well as potentially save lives. Sprinkler systems will be designed to cover the entire area with a sufficient amount of water, effectively extinguishing the fire and preventing it from reigniting. This level of protection can give occupants valuable time to evacuate the building and for emergency responders to arrive.

Moreover, the automatic sprinkler system is constantly on guard, even when no one is present in the home. With an automatic sprinkler system in place, the risk of a small fire turning into a catastrophic event is greatly reduced, making it an essential component in fire safety and prevention.

3. The current policy of the Nehalem Bay Fire and Rescue Department is that if a fire breaks out, they will transport the required water to the fire using their tanker trucks. This policy allows them to have an adequate supply of water to control and protect homes rather than depending on the availability of water from the local water districts.
4. For land divisions that have the potential to increase the overall density, this minimum requirement of 1000 gallons per minute will not change from the current requirements, other than the ability of the developer to apply for a variance for the required fire flow. The reason for this is that adding density could demand new hydrants and piping infrastructure that should be designed to accommodate greater flows. New development shall require concurrent, adequate infrastructure designed to meet the development's requirements. Further, these new developments shall not burden the City with an inadequate water supply as new development occurs.

The proposed modifications outlined in the guidelines are the minimum requirements that developers must meet in order to ensure responsible water infrastructure sizing and fire flow protection. These modifications are essential in promoting sustainable development and protecting our precious water resources. However, in cases where water intensive uses are proposed, additional infrastructure such as tankage and pumping systems may be necessary. This is important to note as it highlights the importance of careful planning and consideration when it comes to water usage and fire protection. It also emphasizes the need for developers to prioritize responsible infrastructure development and not solely focus on cost savings or convenience.

It is important to keep in mind that applying for a variance should only be considered as a last resort. The variance process should not be used as a means to cut corners or bypass the minimum requirements. It is intended to be a last option when all other options have been exhausted. This ensures that responsible water usage and infrastructure protection remains a top priority and that developers are held accountable for meeting the minimum requirements. The variance process should only be used when there are no other feasible options available, and the decision should be made with the utmost consideration for the safety and welfare of the Nehalem community.

Please feel free to reach out with any questions.

Sincerely,
North Coast Civil Design, LLC



Kyle Ayers, PE
Principle in Charge

City of Nehalem, OR

Page 2
North Coast Civil Design Project No. 21005