

**Pierce County Surface Water Management
Channel Migration Zone Citizen Advisory Committee
Staff Response**

October 2009

The purpose of this report is to provide the staff perspective on the recommendations made by the Channel Migration Zone Citizen Advisory Committee (CMZ CAC) in their August 2009 report to the Pierce County Council. In addition to responding to each of the group's recommendations, this report also describes the Department of Public Works and Utilities Surface Water Management division's involvement in the CMZ CAC process.

BACKGROUND

The Pierce County Council established the Channel Migration Zone Citizen Advisory Committee (CMZ CAC) in April 2008 to evaluate and provide recommendations on the management of channel migration zones (CMZs) in unincorporated Pierce County (R2008-55). Monthly public meetings were held between September 2008 and August 2009.

The Surface Water Management (SWM) division of Public Works and Utilities was involved in the CMZ CAC process in three primary ways: establishing the group, providing technical information and serving as ongoing administrative support.

Establishing the CMZ CAC – As directed by the authorizing resolution, SWM solicited applications from the public via broad email distribution, online notices and through existing community groups. From the 19 applications received, twelve individuals were selected and appointed by the Pierce County Council. Council indicated in R2008-55 that the committee be comprised of “representatives from a variety of stakeholder groups including, but not limited to, affected property owners... watershed councils, land use advisory committees, and floodplain management professionals.” However, the small pool of applicants made broad representation difficult: ten of the 12 members of the committee own property within the severe channel migration zone, one member owns a business located near a CMZ and one member participates in a watershed council as staff at a natural resources agency. It is important to note that the high proportion of affected property owners directly contributed to what SWM staff felt was an over-representation of issues related to personal property rights in the group's final recommendations. These members represented the Puyallup (4), Nisqually (5) and Carbon (1) river and South Prairie Creek (1) areas. Citizens living outside of a channel migration zone but who may be indirectly impacted by CMZs (e.g., by sharing part of the financial burden of CMZ management activities and emergency response) were not represented among the committee's membership.

Technical information – SWM staff provided the CMZ CAC with the technical information necessary to evaluate and develop recommendations about Pierce County's management of CMZs, including: channel migration studies, maps, applicable sections of Pierce County Code,

relevant state and federal regulations, information about CMZ regulations and studies in other jurisdictions, and other documentation. In addition, staff gave presentations on channel migration and other natural river processes, responded to a number of requests for information, and were available during and between meetings to answer questions from the CAC.

Administrative support – Monthly CMZ CAC meetings were organized, advertised and staffed by Surface Water Management. Staff support included preparation of materials, maintenance of website, development of workplan and standard operating procedures, facilitation, record-keeping, agenda development (with the Chair) and organization of meeting facilities. SWM staff also supported the CAC’s development of their final report by recording, organizing and compiling the committee’s ideas into written form consistent with the topic areas as outlined in R2008-55.

RESPONSE TO CAC RECOMMENDATIONS

SWM supports full or partial implementation of some of the CMZ CAC’s recommendations, but does not support all recommendations included in the group’s report. A degree of consensus was reached within the committee, but most of their recommendations had at least one dissenter. This minority opinion, as documented in the CMZ CAC’s report, highlights the complexity of the technical, regulatory and policy considerations being discussed and the difficulty of arriving at a fair and equitable balance for all of Pierce County’s citizens. Many of their recommendations reflect priorities for river management that strongly differ from those of Pierce County SWM. As a whole, the committee’s recommendations lean heavily toward preservation of private properties rights and rely on increases in maintenance, operations and capital improvement spending to protect these interests.

Our responses to the CMZ CAC’s recommendations are detailed below. The committee’s recommendations are grouped according to the four topic areas as directed by Council: mapping of CMZ hazards, development standards, notification and other related issues.

Mapping of CMZ Hazards

M1: Any mapping of CMZs should be done with consideration to fairness, cost-benefit, public expectation and feasibility of alternative solutions.

SWM does not support this recommendation. Because channel migration hazards are based on the hydraulic qualities and erosion potential of highly variable river systems, all mapping of CMZs by Pierce County was done on the basis of best available science. An approach focused on more subjective concepts such as fairness and public expectation would not provide as solid a foundation for regulatory action as one based on best available science, and is not defensible if a hazard determination is challenged.

M2: Those areas currently mapped as “Severe” CMZ hazards should be remapped to take into account the protection provided by existing levee and revetment systems. Areas with a levee or revetment should be mapped as “Active” on the riverward side and “Potential” on the

landward side of the levee. Areas currently within the “Severe” designation but without a levee or revetment should be mapped as “Active.”

SWM does not support this recommendation. Mapping of CMZs was done with the conservative assumption that existing levee systems provide insufficient protection against channel migration. This assumption has been substantiated by numerous levee failures and channel migration events within Pierce County. CMZs in Pierce County are currently mapped in accordance with state guidelines on the basis of severe (less than five years), moderate (five to 15 years) and low (more than 15 years) channel migration risk intervals. As a comparison, other communities have chosen to base their CMZ risk analysis on a 100-year risk interval, a considerably more conservative approach than the 5-year risk chosen by Pierce County.

M3: Levees should be evaluated to determine which can NOT be reasonably expected to perform as a barrier to migration and therefore, should not be mapped as described in M2 above.

SWM partially supports this recommendation. While it is unreasonable to assume that all levees will provide sufficient protection as to prevent channel migration, it may be reasonable to evaluate the actual level of protection provided by flood control facilities to determine whether development restrictions can be eased in that area. Such evaluation should consider facility design characteristics, maintenance practices, performance records, long-range river management planning and other criteria. Determination of protection should not be made solely on the existence of a flood control facility. It should be noted that the evaluation process is likely to be costly, time consuming and highly contentious, as property owners will want levees close to them to be rated as CMZ barriers. This evaluation should be undertaken carefully, giving consideration to new liabilities that will be created through the certification of a Pierce County levee as channel migration resistant. Until such time as this analysis is conducted, current CMZ regulations should continue to apply.

Development Standards

D1: Within “Active” CMZs, development standards should allow some fill and new development, including construction of non-residential structures. Regulations should also allow additional flexibility concerning improvement and replacement of existing structures.

SWM does not support this recommendation. Channel migration presents among the most potentially devastating hazards to at-risk properties. Because “active” CMZs are located within the 5-year risk interval and do not have even the minimal protection provided by the current levee system, it is irresponsible to allow additional investment in these areas. Current CMZ regulations allow for continued use of existing structures, without allowing additional people or investment to be put at risk. In these high risk areas, allowing new structures or improvements to existing structures continues the perpetual cycle of increased damages during channel migration and flood events and increased financial hardship by those who suffer those damages. It also increases the pressure on public agencies and private nonprofit agencies to provide relief to those individuals.

D2: Within “Potential” CMZs, development standards should allow all new development, with the possible exception of critical (e.g., essential infrastructure) and population-dense (e.g., hotels) facilities.

SWM does not support this recommendation. Although we agree with the CMZ CAC that critical facilities should be located outside of channel migration areas whenever possible, SWM does not support the easing of development restrictions to allow all new development within “potential” CMZs. Until levees are evaluated for channel migration resistance, they cannot be assumed to provide adequate protection against property losses.

Notification

N1: It is essential that Pierce County directly notify property owners of any regulatory actions which have the potential to impact their property value or future ability to build on their property. Property owners should be directly notified by mail when a CMZ study is initiated, completed and adopted, and when new regulations are developed and become effective.

SWM partially supports this recommendation. Public notification is an important part of any project, related to channel migration zones or otherwise, and direct mailings are often an effective way to achieve this. However, notification at multiple parts of the process as outlined by the CMZ CAC could become extremely burdensome in terms of increasing project timelines and overextending limited project budgets. A recent County-wide postcard mailing associated with the Pierce County Rivers Flood Hazard Management Plan cost approximately \$60,000. Direct notification of any and all regulatory actions has a great potential to significantly increase costs. For this recommendation to be implemented successfully, dedicated funding would need to be made available and specific criteria for project types and notification points would need to be developed.

N2: All other methods of notification should be conducted via effective methods, such as television and radio ads, notices in popular newspapers, inclusion in twice-yearly Pierce County tax postcards, or other methods. Public notification should be conducted early in the CMZ process.

SWM supports this recommendation, provided funding is made available.

N3: Channel migration hazards should somehow be noted on a property’s permanent record, but should be done so in such a way that it does not affect property values.

SWM partially supports this recommendation. Information about channel migration hazards should be readily available to current and potential property owners as risk advisement. However, SWM is skeptical that such notification can be achieved without real or perceived impact to property values. If undertaken, this notification should include a comprehensive review of all identified and regulated hazards (i.e., inclusive of more than just channel migration risks).

Notice on title was one possible method of notification discussed by the CMZ CAC. This method of notification is inadequate because it would only alert current property owners to channel migration risks; new buyers of CMZ property would be notified of the risk only after they have begun the process of closing the sale. SWM considers it critical that any permanent notification of channel migration risk be equally accessible to both current and potential future property owners.

Another possible tool discussed by the CMZ CAC is to attach a warning statement to the Assessor-Treasurer electronic property information profile (ePIP) page. The warning would notify the user of a potential flood hazard and direct them to call Surface Water Management for more specific information about that hazard. Maintenance of these warning statements and potential responses would require staff resources but could be a way of delivering accurate information so both current and potential property owners could make informed decisions. It is still uncertain how effective this tool would be at reducing or preventing new CMZ losses due to better decisions by property owners. Therefore it is not recommended to be used in lieu of regulating development in flood hazard areas (see response to O4).

Other Related Issues

O1: Pierce County should conduct gravel removal operations in mainstem rivers to control flooding.

SWM partially supports this recommendation. Gravel removal is one of many flood management tools available for purposes of reducing flood risks in Pierce County. SWM is currently in the process of initiating permits to remove gravel on a pilot project basis at up to two sites on the Puyallup River. If gravel removal is permitted, thorough benefit-cost analysis will be conducted to determine whether and how gravel removal activities fit into a long-term comprehensive flood management plan for Pierce County's major rivers. SWM does not view gravel removal as the primary tool for reducing CMZ risk or eliminating flood related losses in all river systems.

O2: Pierce County should develop a funding strategy for assuring that existing levees are maintained in the future.

SWM supports this recommendation. Development of a sustainable funding strategy for flood management activities is a primary goal of the Pierce County Rivers Flood Hazard Management Plan, which is expected to be completed in 2011. Discussion of the levee maintenance levels of service will also be taken up during the Flood Hazard Management Plan process.

O3: The South Prairie Creek and Upper Nisqually River CMZ studies should be adopted by the Pierce County Council, provided that all of the recommendations contained in this report are implemented.

SWM partially supports this recommendation. The South Prairie Creek and Upper Nisqually River CMZs should be adopted on the basis of the scientific soundness of the studies themselves and their consistency with channel migration zone policy as established in Pierce County Code.

For reasons detailed throughout this report, adoption of these studies should not be contingent upon implementation of the full suite of CMZ CAC recommendations.

Q4: CMZs can be most effectively managed in Pierce County by a combination of level of service improvements and risk advisories.

SWM does not support this recommendation. Flood disasters and losses result when development is allowed in a natural hazard area. Losses can be mitigated at a cost by building levees and removing gravel, but the hazard and residual risk remains. We do not believe this risk can be adequately conveyed to current and potential future property owners by an advisory on a property's permanent record (whether on the title, tax statement or otherwise), nor are we confident that such notification would result in reduced losses due to channel migration. Although both level of service improvements and risk advisories are important tools for managing CMZs, SWM disagrees that they are the most effective tools for reducing risk. Preventing development in natural hazard areas, rather than reliance on structural control systems, is the surest way to avoid losses and regulation is an important tool to achieve this goal.

Q5: Pierce County should coordinate with cities and others to comprehensively examine all flood hazard management issues and practices in a transparent way.

SWM supports this recommendation. Coordination with cities and other stakeholders affected by flooding on major rivers in Pierce County is a key component of the Flood Hazard Management Plan.

FINAL RECOMMENDATIONS

As noted above, it is difficult to strike a balance between preservation of property rights and a community's desire to manage risk and reduce losses. Reliance on publicly funded flood control systems and maintenance programs shifts some of the financial risk from the individual property owners to the greater community.

It is important to remember that the key issue being discussed is the ability to increase the amount of private investment in these hazard areas. Existing homes and other land uses are not adversely affected by the current regulations except in the instance where the structure is substantially damaged by a flooding or channel migration event. Although it is perfectly reasonable to expect that the community continue current levels of protection for the preservation of existing investments, is it reasonable for a community to allow ever more development to occur in these hazard areas at ever increasing cost to the public?

It should be noted that the CMZ CAC developed their recommendations with the assumption that past levee maintenance and emergency repairs will continue at a level equal to or greater than past practices. However, due to recent ESA-based environmental challenges and other issues, it is reasonable to expect programmatic changes, and possible restrictions on maintenance practices in the future. How this will affect the ability of the existing levee system to resist channel migration has not yet been determined.

Until the new regulatory landscape is better understood, SWM proposes two actions related to the management of channel migration zones in Pierce County:

- 1) Key issues related to recommendations M3 (levee evaluation), O1 (gravel removal), O2 (funding strategies) and O5 (inter-jurisdictional coordination) should be addressed further during development of the Pierce County Rivers Flood Hazard Management Plan.
- 2) The Pierce County Council should adopt the South Prairie Creek and Upper Nisqually River channel migration zone studies without modification.