Suzanne LaFrance, Mayor

2025 Watershed Planning Scoping APDES Permit No. AKS-052558

MUNICIPALITY OF ANCHORAGE
WATERSHED MANAGEMENT SERVICES

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Introduction

The Municipality of Anchorage (MOA) APDES permit AK-052558 requires the permittees to complete a scoping document, in accordance with Permit Part 2.7.2, for one individual watershed plan for a specific water body, prior to the expiration date of this permit. The scoping document must determine whether activities in the watershed support site-based LID practices and recommend future actions to achieve the identified goals. The scoping document shall consider and discuss the principles described in Permit Parts 2.7.1.1 to 2.7.1.5. The scoping document will determine if a watershed plan will be developed in the next permit cycle.

The permittees must initiate, develop, and complete one individual watershed plan for a specific water body before the expiration date of this permit, based on the scoping document created in the previous permit term. The plan must identify site-based LID goals, recommend future actions to obtain identified goals, and include consideration and discussion of the following principles:

- Minimize impervious surfaces within each watershed by minimizing the creation, extension, and widening of roads and associated development.

- Preserve, protect, create, and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions.

- Prevent or reduce thermal impacts to streams, including requiring vegetated buffers along waterways and disconnecting discharges to surface waters from impervious surfaces.

- Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.

- Preserve and protect trees and other vegetation with important evapotranspiration qualities. Preserve and protect native soils, prevent topsoil stripping, and prevent soil compaction.

Objectives of Watershed Plans

The historical purpose of watershed plans is to provide a document that serves as a tool for planners, scientists, community members, and others to make decisions that will slow further declines and enhance the watershed's positive characteristics. The plans describe the area’s resources, address social and environmental concerns, and identify development and activities that are most beneficial to the entire watershed. It recommends policies and objectives compatible with maintaining urban development and preserving a healthy watershed, which is a centerpiece of the community.

The MOA Watershed Management Services (WMS) believes the historical purpose of watershed plans is being met through other relevant regulatory documents that guide and regulate ongoing development across all watersheds within the MOA. WMS is duplicating efforts by completing watershed plans, while the same objectives are being met through several mechanisms discussed in the next section.

Current MOA Watershed Planning & Protection

This scoping document aims to determine if a watershed plan should be developed in the next permit term. To accomplish this, it is helpful to look at existing watershed plans. During the previous four permit terms, the Permittees have developed Watershed Plans for Chester, Little Campbell Creek, and Campbell Creek.

The Chester Creek Watershed Plan has been included in MOA's guiding documents since 2014. A working group of agency and community interests developed it. This plan outlines several goals, including water quality, fish and wildlife habitats, and data acquisition. The actions required to achieve these goals are described below. They are now implemented throughout all watersheds within the MOA by the APDES MS4 permit, Anchorage Municipal Code of Ordinance (AMC), Design Criteria Manual (DCM), and other relevant resources.

- Water quality: meet State standards for water quality in Chester Creek.
    - Conduct water quality monitoring – MS4 requirement
    - Incorporate BMPs and apply design criteria to future drainage projects and retrofits – DCM, AMC
- Fish and Wildlife habitat: provides habitat for wildlife, healthy fish, and other aquatic organisms.
    - Upgrade culverts – DCM
    - Protect riparian vegetation - AMC
- Data acquisition: improve our understanding of the watershed.
    - Manage data and make it accessible to the public – Chester Creek Master Plan

The Little Campbell Creek Watershed Plan was adopted in 2007. Like the Chester Creek Plan, it was developed by a working group of agency and community interests. This plan highlights primarily the same goals as the Chester Creek Plan. It also has goals in other areas that the MS4 permit, the Code of Ordinance, the Design Criteria Manual, and other resources address. These goals are described below.

- Communication and Coordination: promote watershed awareness and community stewardship.
    - Increase community outreach – MS4 deliverable with Stormwater Outreach Public Education and Involvement report
    - WMS website – MS4
- Water Quality: improve overall water quality and prevent further degradation.
    - Implement LID strategies – MS4 deliverable
    - Improve existing sedimentation ponds – DCM
- Recreational and Economic Opportunities: promote recreational and economic benefits of healthy watersheds.
    - Evaluate and improve the wetland mitigation program – MOA Wetlands Management Plan

Discussion

Anchorage watersheds are primarily developed and function, to the extent possible, in ways that support ecological functions. Existing codes and design criteria are more significant in protecting watersheds than the watershed plans.

The Chester Creek and Little Campbell Creek Watershed Plans were developed through a collaborative effort by many groups and agencies. While developing the Campbell Creek Watershed Plan, WMS lacked support from outside agencies. This is believed to be caused by those agencies developing their own codes, permits, and watershed protections.

As mentioned previously, the objectives of watershed plans are being met through regulatory documents. Examples of these documents are listed below, along with explanations of how they meet the watershed plan objectives.

- *2018 Anchorage Stormwater Manual (Design Criteria Manual Chapter 2 – Drainage).* The Anchorage Stormwater Manual (ASM) outlines stormwater management requirements associated with development projects in Anchorage. It identifies several stormwater management strategies designed to reduce pollutants in stormwater runoff before it is discharged into local water bodies.
    - Section 1: Introduction – Outlines objectives of the manual, the regulatory requirements addressed by the manual (APDES/MS4 permit requirements, State and Local code requirements, and non-applicability), Municipal stormwater policies, and drainage design variance procedures.
    - Section 2: Overview of Stormwater Management – Addresses the need for stormwater management in the context of the potential impacts of stormwater on receiving waters.
    - Section 3: Stormwater Management Requirements – Defines the entities/departments responsible for stormwater project reviews, classifies project types, describes stormwater management requirements (water quality treatment, conveyance design, detention and peak flow control, downstream impact analysis, wetland compliance, operation and maintenance plan, and stormwater management report), and defines reporting requirements.
    - Section 4: Estimating Stormwater Runoff – Discusses and defines hydrologic methods and provides resources for estimating stormwater runoff, including: design storms and rainfall estimation, runoff response, precipitation losses, transforming excess rainfall into runoff quantities, time of concentration, routing stormwater runoff, and suggested computer models.
    - Section 5: Conventional Stormwater Facilities – Defines and provides standards for conventional stormwater conveyance design, including: piped drainage systems, drainage criteria for streets, open channels, channel erosion control design, stream restoration, and icing control design.
    - Section 6: Structural Stormwater Controls – Introduces and defines design standards for various structural stormwater controls, including green infrastructure such as bioretention facilities, infiltration trenches, pervious pavement, chamber systems, ponds, sedimentation basins, natural vegetation retention, and oil and grit separators. Also

covers gravel check dams and outlet/outfall protection.

  - Section 7: Better Site Design Practices – Discusses and encourages the implementation of better site design practices such as parking lot stormwater "islands", the use of buffers and undisturbed areas, using vegetated swales rather than curb and gutter, and draining runoff to pervious areas. Also provides additional recommended resources related to better site design.
  - Section 8: Snow Storage Requirements – Defines snow melt guidelines and site design criteria for snow storage and disposal sites.

- *2020 MOA and Alaska DOT&PF Alaska Pollutant Discharge Elimination System (APDES), Municipal Separate Storm Sewer System (MS4) Permit*. This DEC permit regulates the MOA/DOT&PF stormwater collection systems, including their design, management, and operation. This permit requires the development of watershed management plans to improve water quality in local water bodies. Permit requirements that involve the principles of Watershed Planning (Permit Part 2.7.1.1 to 2.7.1.5) include:
  - Construction site runoff controls and inspections.
  - Stormwater management for areas of new development and redevelopment. Requires stormwater controls for public or private projects with a ground disturbance of more than 10,000 square feet.
  - Industrial and Commercial stormwater management, controls, and tracking.
  - Stormwater infrastructure and street management requirements (street sweeping, OGS, catch basin cleaning, etc.)
  - Illicit discharge response and management.
  - Public education and involvement.
  - Stormwater monitoring.
- *Chester Creek & Campbell Creek Watershed Stormwater Master Plan*. These stormwater master plans identify and characterize the expected condition and associated failure risk of the stormwater collection system in the Chester and Campbell Creek Watershed. It will also provide a hydrologic and hydraulic performance evaluation of the existing system to identify deficiencies and help focus stormwater-related improvement projects on high-priority areas.
- *2017 Anchorage 2040 Land Use Plan*. The 2040 Land Use Plan updated the Anchorage 2020 Anchorage Bowl Comprehensive Plan. The 2040 Land Use Plan updates population and economic forecasts for city growth and land needs through 2040 and includes a Land Use Plan Map. The Land Use Plan Map is a visual guide for future land uses and development patterns across the Anchorage Bowl. This map provides the blueprint for how Anchorage will accommodate economic growth and meet the forecast housing needs of our city's residents. The plan also includes updated goals, policies, and strategies to achieve expected growth while meeting today's challenges.
- *Anchorage Wetlands Management Plan.* Originally introduced and adopted by the Anchorage Assembly in 1982, updated in 1996, and again in 2014, this plan provides a mapped inventory of wetlands and sets regulatory standards for specific wetland units within the

Municipality. The stated purpose of the plan is threefold:

1. To provide accurate mapping and assessment of freshwater wetlands within the Municipality;
2. To provide a hierarchy of values for wetland units based on function; and
3. To derive management strategies that balance wetland integrity and function while allowing development that would not cause more than minimal adverse impacts.

- *Alaska Administrative Code Title 18, Chapter 70* provides standards for water quality that must be maintained in Alaska.
- *The Anchorage Municipal Code, particularly Title 15 and Title 21,* outlines regulations related to land use, including setback areas for stream protection, water quality protection, pollution prevention, and construction requirements.
    - Title 15: Environmental Protection – Sets standards and regulations for environmental protection, including trash handling and disposal, public nuisances, Watershed district regulations and protections, water well and on-site sewage system regulations (including separation distances from streams and other surface waters), pesticide control, and invasive species.
    - Title 21: Land Use Planning – Sets standards and regulations for land use and development, including natural resource protection, development/non-disturbance setbacks from streams, water bodies, drainageways, and wetlands, prohibitions for illicit discharges and dumping to storm sewers or receiving waters, open space requirements, and landscaping requirements.

Conclusion

WMS does not see a reasonable need to continue developing watershed plans throughout the MOA. By creating these plans, efforts are duplicated because the objectives are met through other avenues. Also, the current watershed plans are not being used for their intended purpose as tools for decision-making about watersheds. WMS requests that the requirement to develop a watershed plan in the APDES permit be removed, so efforts can be focused on better serving the watersheds in the MOA.