



## INTERNAL MEMORANDUM

**To:** Kevin Eischens, PLS  
Supervisor, Land Development Services

**cc:** Project Central File I1014.22006

**From:** Elise Blocker  
Community and Regional Planner

**Date:** December 22, 2022

**Subject:** Skagway West Creek Subdivision Planning Review

### PLANNING REVIEW

RESPEC was tasked with a planning-level evaluation of the Skagway West Creek Subdivision. The evaluation included a review of Skagway Municipal Code (SMC) Title 19 Zoning Regulations and Title 20 Subdivisions, a request and review of existing electrical lines to service development, the addition of internal roads, and septic tank best practices.

### FLOODING

According to the 2014 West Creek Master Plan, both the Taiya River and West Creek have historically flooded. In 2002, the flooding surpassed the estimated 500-year flood for West Creek. Culverts were installed along West Creek Road in 2003-04 in response to the most recent 2002 flooding.

Flood mapping is not available in the project area. Building and sanitary systems must be built per SMC 15.12.040 *Protection Against Flood Damage* in these areas.

Recommendation:

- Evaluate the area for further study to determine if levees are needed.

### UTILITY CONSIDERATIONS

#### ELECTRICAL

The as-built provided by Alaska Power and Telephone, dated 2008, indicates that the proposed subdivision's potential electrical tie-ins are adjacent to the east and south. See attached.

#### SEPTIC

1028 AURORA DRIVE  
FAIRBANKS, AK 99709  
907.452.1414



LOCAL CODE

SMC 19.06.020.H states that septic systems, leach fields, and other private sewerage facilities are permitted as long as an engineer licensed in Alaska determines the percolation and water table depth are suitable to both the municipality and the Alaska Department of Conservation.

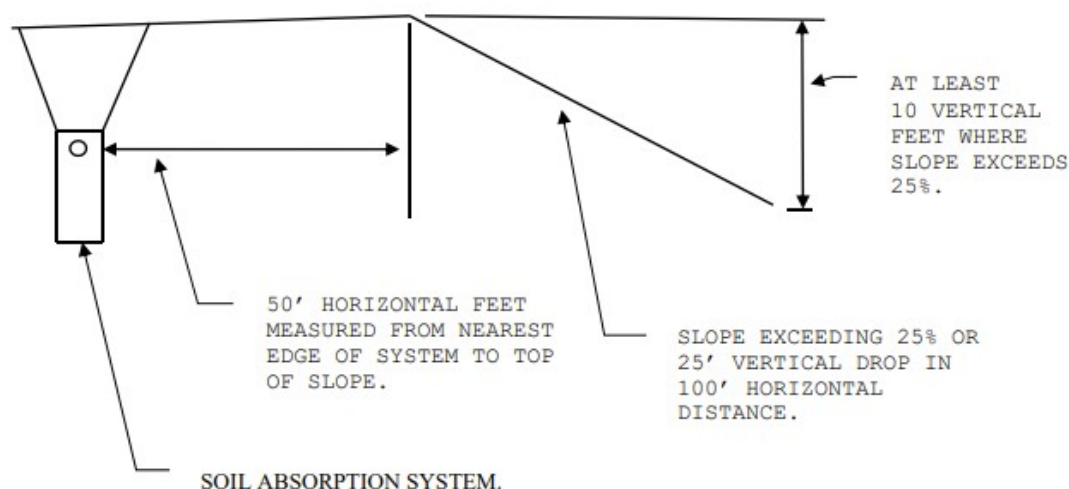
SMC 20.04.020.D1&2 states requirements for the plat to include percolation and water-table depths in accordance with ADEC regulations and the developer to provide a hydrology report.

STATE

18 AAC 72.020(b) states the septic tank must be placed a minimum of 100ft away (measured horizontally) from the mean annual high-water level of the nearest lake, river, spring, or slough.

18AAC 72.020(g)(1) states the septic tank cannot be installed directly above or below the water line at any distance or within 10 horizontal ft.

18AAC 72.035 outlines septic specifications based on minimum gallons, capacity, number of bedrooms in the residence, access openings, and frost protection by location. 18 AAC 72.035(d)(8) and (9) state the ground surface slope must be less than or equal to 25% for trenches and less or equal to 10% for beds while there is also 50ft of separation between any part of the soil absorption system from any slope greater than 25% with a surface height greater than 10ft. See the diagram figure below with additional requirements from ADEC 18 AAC 72 Water Disposal 2017.



**Figure 1**

(10) the system is not located in an area

- (A) known or suspected to contain permafrost;
- (B) where similar systems have been known to fail;
- (C) where a high groundwater table or poor soil conditions exist; or
- (D) where the department finds that a discharge threatens public health, public and private water systems, or the environment.



There is no specific requirement for minimum lot size. There are only setback requirements preventing the lot from being too small given the topography, nearby water sources, and other obstacles. The table below is from the ADEC Division of Water Engineering Support and Plan Review document dated January 27, 2016.

| MINIMUM SEPARATION DISTANCES  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
|---|---|----------------------------------|--------------------------------------|------------------------------|------------------------------------|------------------------------|--|-------------------------------|-------------------------|
| WELL CLASSIFICATION AND ABBREVIATED DEFINITIONS (SEE 18 AAC 80 FOR COMPLETE DEFINITIONS)  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| <b>Private Water System:</b> means a potable water system that is not a public water system.  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| <b>Public Water System:</b> a potable water system serving 25 or more people at least 60 days per year (formerly known as Class "A" and Class "B" Water Systems). Public Water Systems are either:  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| 1. Community Water Systems  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| 2. Non-Community Water Systems  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| <b>Waterline:</b> means a distribution main line (see 18 AAC 80.1990)   |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| <b>Water Service Line:</b> has the meaning found in 18 AAC 80.1990  |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| <b>Private Water Service Line:</b> means a line or pipe serving a Private Water System (see 18 AAC 80.1990)   |   |                                  |                                      |                              |                                    |                              |  |                               |                         |
| Distance From Well  | Distance To Private Sewer Line or Cleanout  | Distance To Community Sewer Line | Distance To Community Sewer Cleanout | Distance To Septic Tank      | Distance To Holding Tank           | Distance To Absorption Field | Distance To Fuel Tank                  |                               |                         |
| Public Water System Well  | 100 feet  | 200 feet                         | 200 feet                             | 200 feet                     | 200 feet                           | 200 feet                     | 100 feet                               |                               |                         |
| Private Water System Well   | 25 feet   | 75 feet                          | 100 feet                             | 100 feet                     | 75 feet                            | 100 feet                     | 25 feet                                |                               |                         |
| Waterline   | 10 feet   | 10 feet                          | 10 feet                              | 10 feet                      | 10 feet                            | 10 feet                      | 10 feet                                |                               |                         |
| Water Service Line  | No State of Alaska separation distance requirement to sewer components. Please refer to the Uniform Plumbing Code for the current separation distance requirements. |                                  |                                      |                              |                                    |                              | 10 feet                                |                               |                         |
| Private Water Service Line  |   |                                  |                                      |                              |                                    |                              | 10 feet                                |                               |                         |
| Distance From Sewer Component   | Distance To River, Lake, Stream, Spring, Slough   | Distance To Lot Line             | Distance To Foundation               | Distance To Absorption Field | Distance To Ground Surface (cover) | Other Absorption Fields      | Seasonal High Water Table (vertically) | Impermeable Soil (vertically) | Slopes Greater than 25% |
| Septic Tank   | 100 feet  | recommend 10 feet                | 10 feet                              | 10 feet                      | See Note 1 Below                   | recommend 10 feet            | Not Applicable                         | Not Applicable                | Not Applicable          |
| Absorption Field  | 100 feet  | recommend 10 feet                | 10 feet                              | Not Applicable               | See Note 1 Below                   | See Note 2 Below             | 4 feet                                 | 6 feet                        | 50 feet                 |
| <b>Note 1-</b> Southwest Alaska (Kodiak and southwest of Chignik)=2 feet minimum ground cover; Southeast Alaska, Municipality of Anchorage & Valdez=3 feet minimum ground cover; All remaining areas of the State of Alaska=4 feet minimum ground cover <b>Note 2-2x</b> gravel depth or 6 feet whichever is greater. |   |                                  |                                      |                              |                                    |                              |  |                               |                         |

**FEDERAL**

The EPA refers to respective health departments with general guidelines for septic tank placement such as: following local/state setback requirements, installing the tank on level ground, accounting for the or adequate slope on the inlet pipe, away from flood areas and ponding surface water, properly vented, avoid areas with steep slopes, and in a location that allows for inspections and pump outs

**ROADS**

Current design access to subdivision shows a single intersect point with Dyea Road. Access to all subdivision lots should be from the platted Right-of-Way (ROW)

Recommendations:

- Do not provide direct lot access to Dyea Road as it appears to be used as a Collector.
- Create Right-of-Way for access roads with a minimum width of 50 feet.

**ADDITIONAL CONSIDERATIONS**



Per Emily Deach's email dated February 15<sup>th</sup>, 2022, the land is zoned Residential Conservation. SMC 19.06.020 outlines the acceptable uses and requirements as it is zoned. The intended purpose is to provide low-density residential development, which allows natural resource development and conservation on lots that are no smaller than 40,000 SF with no width requirement. The concept plat dated 10/30/2022 indicates the smallest lot size is 80,543 SF which is twice the minimum requirement of SMC.

Recommended minimum lot size:

- One acre (43,560 SF) lot size minimum should be adequate to accommodate onsite water and sewer.

Recommendations for the concept plat:

- The subdivision is several miles away from the city center. Provide a green space for a public park on one of the lots adjacent to West Creek. The proposed plat indicates the northern portion of lots 11 & 13 as a potential park location.