What is a common collector system?

A common collector system is a wastewater system that collects and discharges treated domestic wastewater through a common sewer line and outfall pipe, and serves two or more individual treatment plants located on separate tax lots or parcels.

Why must a common collector system be permitted?

The Clean Water Act prohibits the discharge of pollutants from a point source into a water of the United States unless the discharging facility has a wastewater discharge permit. The Clean Water Act required the United States Environmental Protection Agency (EPA) to develop specific regulations to carry out the congressional mandate. EPA developed the National Pollutant Elimination Discharge System (NPDES) Program with regulations primarily found in Title 40 of the Code of Federal Regulations (CFR) Part 122. EPA administered the program in Alaska until permitting authority was transferred to the State as the Department of Environmental Conservation (DEC or Department) Alaska Pollutant Elimination Discharge System (APDES) Program in October 2008. State regulations to implement and administer the APDES...
What type of common collector systems may be eligible for coverage under the Alaska Pollutant Elimination Discharge System (APDES) General Permit AKG575000?

General Permit AKG575000 covers common collector systems that discharge equal to or less than 25,000 gallons of secondary treated domestic wastewater to marine waters within Southeast Alaska.

Why is permit coverage limited to Southeast Alaska?

In coastal areas, particularly in Southeast Alaska, site conditions such as poor soil and/or high groundwater tables do not support the installation and operation of most conventional on-site disposal systems. Due to the logistics and cost of installing a marine outfall line, groups of homeowners combine their individual waste streams to discharge via a singular outfall pipe.

Why is DEC requiring common collector systems to be permitted at this time?

This action does not represent new State of Alaska regulations. As previously stated, the Clean Water Act and subsequent federal and state regulations require a permit for a point source discharge to waters of the state (such as discharges from common collector systems). EPA developed a general permit in 2004 that covered a variety of domestic wastewater discharge facilities; small publicly owned treatment works, privately owned lodges, small lagoon treatment systems, and common collector systems. When the general permit expired in 2009, facilities that had applied for permit reissuance were issued administrative extensions until the general permit could be reissued. As such, several facilities that will be affected by DEC’s permitting action have long been permitted. DEC assumed regulatory authority in 2008 and determined it appropriate to revise the 2004 general permit into three separate general permits to more accurately address the unique characteristics and issues of the different types of discharge facilities.

To replace the broad EPA permit issued in 2004, a first general permit, AKG572000, went into effect November 2012 to cover the small publicly owned treatment works and privately owned treatment plants used at businesses like lodges. The second general permit, AKG573000, went into effect September 2013 to cover lagoon treatment systems. The third general permit, AKG575000, is being developed for common collector systems.

Eight common collector systems are currently permitted, under administrative extensions of the expired 2004 general permit. Some of these common collector systems have been permitted for 13 or more years. DEC estimates that there are at least 30 other common collector systems in Southeast Alaska that have never been permitted. DEC’s goal in developing the common collector general permit is to ensure that all common collector systems, those currently permitted and those that have gone unpermitted for many years, be held to equal standards and meet long standing regulations aimed at protecting human health and the environment.
Why does the new general permit contain fecal coliform bacteria effluent limits and more stringent limits than those applied in the 2004 general permit?

All discharge permits issued in Alaska must contain conditions that ensure compliance with Alaska Water Quality Standards (WQS) regulations found in 18 AAC 70. These regulations protect human health, aquatic life and wildlife. Fecal coliform bacteria have water quality criteria established in the regulations. Effluent limits for fecal coliform bacteria in the general permit are calculated based upon these regulatory water quality criteria. The general permit contains three options a common collector system may utilize to comply with the general permit effluent limits; 1) meet the “end-of-pipe” limits prior to discharge to the receiving water, 2) meet the effluent limits associated with the standard sized mixing zone specified in the general permit, or 3) provide information to the department for review to determine if a site specific mixing zone and effluent limits are warranted.

It is anticipated that some common collector systems may not be able to meet the applicable water quality criterion for fecal coliform bacteria at that point when the discharge leaves the outfall pipe. In such cases, the applicant may request a mixing zone under the general permit. A mixing zone is a limited area within the marine receiving water, around the point of discharge, where water quality criteria can be exceeded as long as toxic conditions are prevented and the water body as a whole is not impaired.

There is a set of fecal coliform bacteria permit effluent limits in the new common collector general permit that are based on a calculated dilution available within a mixing zone size that was designed to fit most common collection outfall characteristics. This standard mixing zone is offered to spare the homeowners the expense of conducting their own mixing zone modeling. However, homeowners have the option to model a site-specific mixing zone and submit evidence necessary for DEC to base an informed decision as to whether a different sized mixing zone will meet all regulatory requirements.

The eight currently permitted common collector systems will have more stringent fecal coliform bacteria permit limits than are required in their current general permit authorizations issued under the 2004 permit. Again, the more stringent proposed fecal coliform bacteria limits are calculated based on the current regulatory water quality criteria under 18 AAC 70. To meet these fecal coliform bacteria permit limits, the common collector systems may be required to incorporate disinfection of the wastewater prior to discharging.

How often will a common collector system be required to be sampled?

The general permit requires that samples be taken to demonstrate that the permit limits are being met. Monitoring is required by regulation. Sampling frequency depends on the volume of discharge which is based on the sum of the design flow rates for all contributors to the common collector systems.

- Common collector systems that discharge less than 1,500 gallons per day (gpd) will only be required to sample twice per year;
- Common collector systems that discharge greater than 1,501 gpd and less than or equal to 15,000 gpd will only be required to take samples quarterly, four times per year; and
- Common collector systems that discharge greater than 15,001 gpd and less than 25,000 gpd will be required to sample monthly, 12 times per year.
As an example: A common collector systems that services 20 homes that all have treatment plants with a design flow rate of 600 gpd (which can serve a four bedroom home) would have a sum of 12,000 gpd and would be required to sample only quarterly.

**Why are marine outfalls from single family homes not required to have wastewater discharge permits?**

An APDES general permit for discharges to marine water from single family homes has not yet been developed. Currently, the Division of Water (DOW) evaluates single family home septic systems under 18 AAC 72 Wastewater Disposal regulations. Additional information is located on the DOW website at: [http://dec.alaska.gov/water/wwdp/onsite/index.htm](http://dec.alaska.gov/water/wwdp/onsite/index.htm)

**What are the fees for coverage under the General Permit?**

The appropriate fee is based on the sum of the design flow rates of all contributors to the common collector system which corresponds to the flow classes defined in the permit.

<table>
<thead>
<tr>
<th>Annual fee for a domestic wastewater system covered under a general permit, with a daily maximum permitted flow, in gallons per day, of</th>
<th>Fee (in dollars) on or before December 31, 2017</th>
<th>Fee (in dollars) not earlier than January 1, 2018 and not later than December 31, 2018</th>
<th>Fee (in dollars) on or after January 1, 2019</th>
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<tbody>
<tr>
<td>(A) 0 – 1,500</td>
<td>405</td>
<td>535</td>
<td>665</td>
</tr>
<tr>
<td>(B) 1,501 – 15,000</td>
<td>765</td>
<td>765</td>
<td>765</td>
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<tr>
<td>(C) 15,001 and over</td>
<td>1,280</td>
<td>1,280</td>
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Permit fees can also be found either in regulations at 18 AAC 72.956(a) Table D(1) or on DEC’s web site at [http://dec.alaska.gov/water/wwdp/online_permitting/fees.htm](http://dec.alaska.gov/water/wwdp/online_permitting/fees.htm) under “General Permit Fees (18 AAC 72.956) – Table D.” Invoices are mailed out annually, usually at the beginning of the calendar year, and payment is due within 30 days.

**Who will be held responsible for the discharge from the common collector system and for the annual permit fee?**

The responsible entity, as identified on the Notice of Intent (NOI), will be the permittee and will be legally responsible for the total discharge from the common collector system, and thus is ultimately responsible for the permit compliance, including violations, fines, enforcements, compliance orders, and annual permit fees.

The responsible entity can be any of the examples described in 18 AAC 72.205(a)(6): a local governments organization, a homeowner’s association, a private utility, a commercial entity, or other entity.