ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM



Web-Based Sanitation Deficiency System

2015 Update

Funding Information • State Information • SDS Overview • Reference

FY2015 SDS Informational Meeting

1:00-2:30PM, April 2, 2014
Alaska Native Tribal Health Consortium
Environmental Health and Engineering
4141 Ambassador Drive
Inuit Building, Conference Room 3

Presenters

Steve Bolan, Indian Health Service

- Welcome and introduction
- Sanitation Deficiency System overview
- Deadlines and due dates for SDS activities

Rebecca Pollis, Alaska Native Tribal Health Consortium

- Maintaining Housing Inventory Tracking System (HITS)
- Impacts to funding allocation

Tom Fazzini, Alaska Native Tribal Health Consortium

- HITS example and demonstration

Steve Bolan, Indian Health Service

- Data review
- HUD eligibility

Dennis Wagner, Environmental Protection Agency

- Preliminary Engineering Reports (PERs)

Bill Griffith, Alaska Village Safe Water Program

- CIP schedule

Question and answer session

2015 wSDS & CIP Schedule

Date	Indian Health Service Sanitation Deficiency System	State of Alaska Capital Improvement Program
April 2, 2014	2014 Informational Meeting for project funding needs, scoring and allocation.	
May 30	Target date for all information to be entered into wSDS. Regional Health Organization (RHOs) and tribal review and consultation to occur between May 30 and June 20.	
June 20	Deadline for project managers/engineers to enter all data relating to sanitation project needs into the Alaska Sanitation Needs Database for funding allocation consideration by SDS and CIP.	
June 23		Start of community application period for CIP (planning projects and design/construction projects)
June 24 - 27	SDS scoring by review committee.	
June 30	Preliminary SDS score available (With no tribal points).	
June 30 - July 23	RHOs assign tribal points.	
July 23	Deadline for Tribal Points Assignments to Steve Bolan, IHS: stephen.bolan@ihs.gov	
July 30	SDS priority list released and data finalized and submitted to IHS headquarters.	
August 8		Deadline for community applications for CIP projects (construction and planning projects)
Week of August 18		CIP scoring by review committee.
Week of August 25		Preliminary CIP scores released to agency engineers and mailed to communities.
September 12		Deadline for submitting comments to DEC regarding initial CIP scores.
September 29		New CIP funding lists are released (Planning project list and Multi-Year Priority List for design/construction projects)
Starting October 1st		Federal and state funding will be made available for CIP listed projects as funds are made available.
January - May 2015	FFY2015 funding is made available for SDS projects	

SDS Summary

SDS SUMMARY (1 PAGE)
Area: AN

GENERAL AREA INFORMATION	
Number of Projects:	
Total Data Base:	572
Current Agency Funding Plan:	390
Total Project Costs (IHS Regular):	
Total Data Base:	$1,152,784,281
Current Agency Funding Plan:	$543,980,803
Estimated Number of Homes Without Potable Water (Excluding E2 and E3 homes)	4,118
Estimated Number of Homes at Deficiency Levels 4 and 5	6,439
Estimated Number of Homes at Deficiency Levels 2 through 5	22,240
Estimated Number of Homes at Deficiency Levels 1 through 5	24,050
Estimated Number of Homes at Deficiency Levels 0 through 5	24,100
Number of Communities in Deficiency Profile	199

DEFICIENCY LEVEL INFORMATION

DEFICIENCY LEVEL	0	1	2	3	4	5
Homes	50	1,810	1,430	14,371	1,126	5,313
Percent Eligible Homes	0.22	8.14	6.43	64.62	5.06	23.89
Number of Projects		8	103	268	150	10
Estimated Cost (IHS Regular)						
Total Data Base:		$4,625,200	$90,525,376	$403,291,818	$585,713,644	$17,328,197
Current Funding Plan:			$68,774,634	$260,165,848	$207,273,131	$240,000

TYPE OF SERVICE INFORMATION

TYPE OF SERVICE	WATER	SEWER	SOLID WASTE	O&M
Homes at IDL 0	53	53	5,291	N/A
Homes at IDL 1	5,454	6,803	1,854	N/A
Homes at IDL 2	4,093	4,420	1,325	N/A
Homes at IDL 3	8,595	6,977	15,733	N/A
Homes at IDL 4	592	534	N/A	N/A
Homes at IDL 5	5,313	5,313	N/A	N/A
Homes at IDL 2-5	18,593	17,244	17,058	N/A
Percent of Eligible Homes	83.60	77.54	76.70	N/A
Total Data Base:	$577,392,968	$470,801,206	$102,350,407	$2,239,700
Current Funding Plan:	$546,359,241	$223,040,152	$74,103,910	$477,500

Homes data displayed on reports may not accurately reflect the project or community information due to the recent HITS upgrade.

Report Criteria	
Dataset:	Current Data
Area(s):	AN
Funded?:	No
HQ Exclusion:	All
Funding:	IHS Regular

Printed: 04/11/2014 10:57AM (Eastern)

PM Community Assignments

Community	Lead Agency	Project Manager	Phone Number
Adak	VSW	Lynn Marino	269-7602
Akhiok	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Akiachak	ANTHC	John Hutchison	729-3723
Akiak	ANTHC	Rebecca Pollis	729-4092
Akutan	ANTHC	Sean Driskill	729-5622
Alakanuk	VSW	Susan Randlett	269-7614
Alatna	ANTHC	Benjamin Chadwick	729-3600
Aleknagik	ANTHC	Timothy Eby/Kurt Sauers	729-4007/729-3546
Allakaket	ANTHC	Benjamin Chadwick	729-3600
Ambler	ANTHC	Brad Blackstone	729-4082
Anaktuvak Pass	MGL	Mike Phillips	269-7615
Anchor Point	VSW	Prashant KC	334-2289
Anchorage	MGL	Mike Lewis	269-7616
Anderson	VSW	Doug Poage	269-7612
Angoon	ANTHC	Mike MarcAurele	729-3546
Aniak	VSW	George Wilson	269-7610
Annette Island	VSW	Doug Poage	269-7612
Anvik	VSW	Prashant KC	334-2289
Arctic Village	VSW	Prashant KC	334-2289
Atka	VSW	Susan Randlett	269-7614
Atmautluak	ANTHC	John Hutchison	729-3723
Atqasuk	MGL	Mike Phillips	269-7615
Badger-Richardson	VSW	Doug Poage	269-7612
Barrow	MGL	Mike Phillips	269-7615
Beaver	VSW	Susan Randlett	269-7614
Bethel	MGL	Mike Lewis	269-7616
Bethel-ONC	ANTHC	John Hutchison	729-3723
Birch Creek	ANTHC	Mike MarcAurele (Temp.)	729-3546
Brevig Mission	ANTHC	John Hutchison	729-3723
Bristol Bay	MGL	Beth Verrelli	269-7603
Buckland	VSW/ANTHC	Debra Addie/Brad Blackstone	269-3085/729-4082
Cantwell	ANTHC	Mike MarcAurele (temp)	729-3546
Central Peninsula	ANTHC		
Chalkyitsik	ANTHC	Sean Driskill	729-5622
Chefornak	VSW	Susan Randlett	269-7614
Chenega Bay	ANTHC	Timothy Eby/Kurt Sauers	729-4007/729-3546
Chevak	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Chignik Bay	ANTHC	Steve Forthun	729-4094
Chignik Lagoon	ANTHC	Steve Forthun	729-4094
Chignik Lake	ANTHC	Steve Forthun	729-4094
Chistochina	VSW	George Wilson	269-7610
Chitina	VSW	Prashant KC	334-2289
Chuathbaluk	VSW	Oscar Mendenez	269-7606
Circle	ANTHC	Benjamin Chadwick	729-3600
Clark's Point	VSW	Prashant KC	334-2289

Community	Lead Agency	Project Manager	Phone Number
Coffman Cove	VSW	Lynn Marino	269-7602
Cold Bay	VSW	George Wilson	269-7610
Copper Center	VSW	Lynn Marino	269-7602
Cordova	MGL	Susan Start	269-7437
Craig	ANTHC	Mike MarcAurele	729-3546
Crooked Creek	ANTHC	Rebecca Pollis	729-4092
Deering	VSW	Doug Poage	269-7612
Delta Junction	VSW	George Wilson	269-7610
Dillingham	ANTHC	Kurt Sauers	729-3546
Dillingham	MGL	Beth Verrelli	269-7603
Diomede	ANTHC	John Hutchison	729-3723
Dot Lake	ANTHC	Benjamin Chadwick	729-3600
Dutch Harbor	ANTHC/MGL	Brad Blackstone & Mike Phillips	729-4082
Eagle Village	ANTHC	Benjamin Chadwick	729-3600
Eek	ANTHC	Kurt Sauers	729-3546
Egegik	VSW	Doug Poage	269-7612
Ekuk	VSW	Prashant KC	334-2289
Ekwok	VSW	Susan Randlett	269-7614
Elfin Cove	VSW	Lynn Marino	269-7602
Elim	ANTHC	Brad Blackstone	729-4082
Emmonak	VSW	Debra Addie	269-3085
Evansville	ANTHC	Benjamin Chadwick	729-3600
Fairbanks NSB	MGL	Mike Phillips	269-7615
False Pass	ANTHC	Sean Driskill	729-5622
Fort Yukon	ANTHC	Brad Blackstone	729-4082
Galena	ANTHC	Mike Roberts	729-4092
Gambell	VSW	Debra Addie	269-3085
Girdwood	ANTHC/MGL	Beth Verrelli	269-7603
Glennallen	VSW	George Wilson	269-7610
Golovin	ANTHC	Mike MarcAurele	729-3546
Goodnews Bay	ANTHC	Kurt Sauers	729-3546
Grayling	ANTHC	Rebecca Pollis	729-4092
Gulkana	ANTHC	John Hutchison	729-3723
Gustavus	VSW	Susan Randlett	269-7614
Healy Lake	VSW	Debra Addie	269-3085
Holy Cross	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Homer	MGL	Beth Verrelli	269-7603
Hoonah	ANTHC/MGL	Steve Forthun & Frank Toth	729-4094
Hooper Bay	VSW	George Wilson	269-7610
Hughes	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Huslia	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Hydaburg	ANTHC	Steve Forthun	729-4094
Igiugig	ANTHC	Brad Blackstone	729-4082
Iliamna	ANTHC	Kurt Sauers	729-3546
Ivanof Bay	VSW	Debra Addie	269-3085
Juneau	MGL	Beth Verrelli	269-7603
Kake	ANTHC	Mike MarcAurele	729-3546
Kaktovik	MGL	Mike Phillips	269-7615
Kaltag	ANTHC	Rebecca Pollis	729-4092

Community	Lead Agency	Project Manager	Phone Number
Kanakanak	ANTHC		
Karluk	ANTHC	Mike MarcAurele (Temp.)	729-3546
Kasaan	ANTHC	Steve Forthun	729-4094
Kasigluk	ANTHC	Rebecca Pollis	729-4092
Kenaitze	ANTHC	Brad Blackstone	729-4082
Kenai	MGL	Beth Verrelli	269-7603
Kennicott/McCarthy	VSW	Prashant KC	334-2289
Ketchikan	MGL	Susan Start	269-7437
Kiana	ANTHC	Brad Blackstone	729-4082
King Cove	MGL	Mike Phillips	269-7615
King Salmon	ANTHC	Rebecca Pollis	729-4092
King Salmon	MGL	Beth Verrelli	269-7615
Kipnuk	ANTHC	Rebecca Pollis	729-4092
Kivalina	ANTHC	Brad Blackstone	729-4082
Klawock	ANTHC	Mike MarcAurele	729-3546
Klukwan	ANTHC	Steve Forthun	729-4094
Kobuk	ANTHC	Sean Driskill	729-5622
Kodiak	MGL	Beth Verrelli	269-7603
Kokhanok	ANTHC	Kurt Sauers	729-3546
Koliganek	ANTHC	Kurt Sauers	729-3546
Kongiganak	VSW	Susan Randlett	269-7614
Kotlik	ANTHC	Mike Roberts	729-4092
Kotzebue	ANTHC	John Hutchison	729-3723
Koyuk	ANTHC	Brad Blackstone	729-4082
Koyukuk	ANTHC	Kurt Sauers	729-3546
Kwethluk	ANTHC	John Hutchison	729-3723
Kwigillingok Village	ANTHC	Steve Forthun	729-4094
Lake Minchumina	VSW	Lynn Marino	269-7602
Larsen Bay	ANTHC	Mike MarcAurele (Temp.)	729-3546
Levelock	ANTHC	Brad Blackstone	729-4082
Lime Village	ANTHC	Rebecca Pollis	729-4092
Lowell Point	VSW	Debra Addie	269-3085
Lower Kalskag	ANTHC	Steve Forthun	729-4094
Manokotak	VSW	George Wilson	269-7610
Marshall	VSW	Donna Lee	269-7611
McGrath	VSW	George Wilson	269-7610
Mekoryuk	VSW	Lynn Marino	269-7602
Mentasta	VSW	Debra Addie	269-3085
Metlakatla	VSW	Doug Poage	269-7612
Minto	VSW	Susan Randlett	269-7614
Mount Edgecumbe	ANTHC		
Mountain Village	VSW	Doug Poage	269-7612
Naknek	ANTHC/MGL	Rebecca Pollis & Beth Verrelli	729-4092
Nanwalek	ANTHC	Rebecca Pollis	729-4092
Napakiak	VSW	Donna Lee	269-7611
Napaskiak	VSW	Donna Lee	269-7611
Naukati West	VSW	Debra Addie	269-7611
Nelson Lagoon	ANTHC	Brad Blackstone	729-4082
Nenana	ANTHC/MGL	Steve Forthun & Beth Verrelli	729-4094

Community	Lead Agency	Project Manager	Phone Number
New Stuyahok	ANTHC	Kurt Sauers	729-3546
Newhalen	ANTHC	Kurt Sauers	729-3546
Newtok	VSW	Greg Magee	269-7613
Nightmute	VSW	George Wilson	269-7610
Nikolaevsk	VSW	Prashant KC	334-2289
Nikolai	ANTHC	Rebecca Pollis	729-4092
Nikolski	ANTHC	Brad Blackstone	729-4082
Ninilchik	VSW	Donna Lee	269-7611
Noatak	ANTHC	Sean Driskill	729-5622
Nome	MGL	Susan Start	269-7437
Nondalton	ANTHC	Mike Roberts	729-4092
Noorvik	ANTHC	Sean Driskill	729-5622
North Pole	MGL	Mike Phillips	269-7615
North Slope Borough	MGL	Mike Phillips	269-7615
Northway	ANTHC	Brad Blackstone	729-4082
Nuiqsut	MGL	Mike Phillips	269-7615
Nulato	VSW	Debra Addie	269-3085
Nunam Iqua	ANTHC	Rebecca Pollis	729-4092
Nunapitchuk	VSW	Lynn Marino	269-7602
Old Harbor	ANTHC	Mike MarcAurele (Temp.)	729-3546
Oscarville	ANTHC	Mike Roberts	729-4092
Ouzinkie	ANTHC	Mike Roberts	729-4092
Palmer	MGL	Susan Start	269-7437
Pedro Bay	ANTHC	Kurt Sauers	729-3546
Pelican	VSW	Doug Poage	269-7612
Perryville	ANTHC	Kurt Sauers	729-3546
Petersburg	MGL	Frank Toth	465-5302
Pilot Point	VSW	George Wilson	269-7610
Pilot Station	ANTHC	John Hutchison	729-3723
Pitka's Point	ANTHC	Mike Roberts	729-4092
Platinum	VSW	Lynn Marino	269-7602
Point Baker	VSW	Susan Randlett	269-7614
Point Hope	MGL	Mike Phillips	269-7615
Point Lay	MGL	Mike Phillips	269-7615
Port Alexander	VSW	Susan Randlett	269-7614
Port Alsworth	VSW	Lynn Marino	269-7602
Port Graham	ANTHC	Rebecca Pollis	729-4092
Port Heiden	VSW	Donna Lee	269-7611
Port Lions	ANTHC	Mike Roberts	729-4092
Port Protection	VSW	Susan Randlett	269-7614
Portage Creek	VSW	Debra Addie	269-3085
Quinhagak	VSW	Donna Lee	269-7611
Rampart	ANTHC	Mike MarcAurele (Temp.)	729-3546
Red Devil	VSW	George Wilson	269-7610
Ruby	ANTHC	John Hutchison	729-3723
Russian Mission	ANTHC	Rebecca Pollis	729-4092
Saint George	VSW	Doug Poage	269-7612
Saint Mary's	ANTHC	John Hutchison	729-3723
Saint Michael	ANTHC	Brad Blackstone	729-4082

Community	Lead Agency	Project Manager	Phone Number
Saint Paul	VSW	Doug Poage	269-7612
Sand Point	ANTHC	Brad Blackstone	729-4082
Savoonga	ANTHC	John Hutchison	729-3723
Saxman	ANTHC	Steve Forthun	729-4094
Scammon Bay	ANTHC	Mike Roberts	729-4092
Selawik	ANTHC	Rebecca Pollis	729-4092
Seldovia	VSW	Lynn Marino	269-7602
Seward	MGL	Beth Verrelli	269-7603
Shageluk	ANTHC	John Hutchison	729-3723
Shaktoolik	VSW	George Wilson	269-7610
Shishmaref	ANTHC	Brad Blackstone	729-4082
Shoup ST	MGL		
Shungnak	ANTHC	Sean Driskill	729-5622
Sitka	MGL	Frank Toth	465-5302
Skagway	MGL	Frank Toth	465-5302
Slana	VSW	Oscar Mendenez	269-7606
Sleetmute	VSW	Doug Poage	269-7612
Soldotna	MGL	Beth Verrelli	269-7603
South Naknek	ANTHC	Kurt Sauers	729-3546
Southcentral Foundation	ANTHC	John Hutchison	729-3723
Stebbins	ANTHC	Brad Blackstone	729-4082
Stevens Village	VSW	Prashant KC	334-2289
Stony River	ANTHC	Rebecca Pollis	729-4092
Takotna	ANTHC	Mike MarcAurele (Temp.)	729-3546
Talkeetna	MGL	Mike Phillips	269-7615
Tanacross Village	ANTHC	Brad Blackstone	729-4082
Tanana	VSW	Susan Randlett	269-7614
Tatitlek	ANTHC	Timothy Eby/Kurt Sauers	729-4007/729-3546
Tazlina	ANTHC	John Hutchison	729-3723
Teller	VSW	Lynn Marino	269-7602
Tenakee Springs	VSW	Greg Magee	269-7613
Tetlin	ANTHC	Brad Blackstone	729-4082
Thorne Bay	VSW	Doug Poage	269-7612
Togiak	ANTHC	Mike Roberts	729-4092
Toksook Bay	ANTHC	Mike Roberts	729-4092
Tuluksak	VSW	Susan Randlett	269-7614
Tuntutuliak	VSW	Susan Randlett	269-7614
Tununak	VSW	Susan Randlett	269-7614
Twin Hills	ANTHC	Timothy Eby/Kurt Sauers	729-4007/729-3546
Tyonek Village	ANTHC	Steve Forthun	729-4094
Ugashik	ANTHC	Kurt Sauers	729-3546
Unalakleet	VSW	Lynn Marino	269-7602
Unalaska	ANTHC/MGL	Brad Blackstone & Mike Phillips	729-4082
Upper Kalskag	VSW	George Wilson	269-7610
Valdez	MGL	Beth Verrelli	269-7603
Venetie	ANTHC	Kim Eisberg/Mike Roberts	729-4510/729-4092
Voznesenka	VSW	Greg Magee	269-7613
Wainwright	MGL	Mike Phillips	269-7615

Community	Lead Agency	Project Manager	Phone Number
Wales	VSW	Prashant KC	334-2289
Wasilla	MGL	Susan Start	269-7437
Whale Pass	VSW	Greg Magee	269-7613
White Mountain	ANTHC	Brad Blackstone	729-4082
Whittier	VSW	Donna Lee	269-7611
Wrangell	MGL	Frank Toth	465-5302
Yakutat	ANTHC	Mike MarcAurele	729-3546

SDS: An Overview

Fiscal Year 2015 Update

List of Figures

List of Tables

SDS: An Overview

Fiscal Year 2015 Update

General Information about the SDS

This manual provides background information about the web-based Sanitation Deficiency System (SDS) as well as an overview of the process and key concepts associated with entering data in the SDS. The accurate and timely entry of data into the SDS is important, as the amount of Indian Health Service (IHS) Regular funding available each year for Alaska is allocated based on need and the percentage of homes in Alaska at deficiency levels 3, 4, and 5 as a percentage of the national total. The amount of funding allocated to Alaska is then determined from this percentage compared to the available IHS Regular funds nationally. For additional information, go to https://wstars.ihs.gov/ or direct any questions to ANTHC Director of Project Management David Beveridge (729-3542) or SFC Director Steve Bolan at the IHS (729-3711).

Background Information

Historically, project managers, engineers, and health organizations collected information concerning Native communities' sanitation facility deficiencies annually for input into the SDS. The SDS is primarily used by the IHS to allocate annual Congressional appropriations known as IHS Regular funding. Other federal agencies, including the Environmental Protection Agency (EPA) and the United States Department of Agriculture (USDA) Rural Development (RD) program, also use the SDS to prioritize their annual capital funding. In addition, the State of Alaska utilizes the SDS to determine its priorities under the Community Improvement Program (CIP).

In the past, individuals at each IHS Area Office entered SDS information that had been collected on paper into a computer database called the Sanitation Tracking and Reporting System (STARS). This system is still used today and is comprised of several databases:

- Sanitation Deficiency System (SDS): A database used to allocate funding.
- Project Data System (PDS): A database to track the progress of funded projects.
- Operations and Maintenance Data System (OMDS): A database to track operation and maintenance issues.
- Housing Inventory Tracking System (HITS): A database to track individual home service.

In Alaska, the local STARS manager was required to enter a variety of information for 350-400 projects annually. These projects were reviewed and edited by a number of individuals during the collection and review process. Undergoing multiple reviews introduced errors into the data. With the STARS system, users could not track changes as reviews were completed and the data could not be monitored for errors. A web-based version of the SDS was developed to improve the methodology, analysis capabilities, and retrievability of Native communities' sanitation facility deficiencies information. The SDS achieves this goal by allowing project engineers to enter and edit their data and track it during review.

Accessing SDS/CIP

The SDS uses a web-based database to track the sanitation projects it scores and is one of several databases that make up web-based STARS. The SDS is accessed by first entering the STARS database.

In order to access STARS, Microsoft Internet Explorer (IE) Version 6.0 or higher must be used. Previous versions of IE may cause STARS to function improperly and must be updated prior to accessing STARS. To download the latest version of IE, visit the following website: http://www.microsoft.com/windows/ie/downloads/default.asp.

> ⓘ **Note:** The SDS will not work with other Internet browsing software. Please download Microsoft Internet Explorer V.6.0 or higher if not currently installed.

Obtaining a Username for SDS

Before visiting the SDS site, each user must obtain a username and password from one of the system administrators, Susan Lundgren (729-3516) at ANTHC or Steve Bolan (729-3711) at IHS. The username and password would not have changed for users who have previously entered data in the SDS.

> ⓘ **Note:** A username is usually the user's first name initial followed by the entire last name without spaces. Passwords are preset by the system administrator and should be changed after first login. To change a password, go to the 'My Profile' tab under the 'Home' tab. The 'Change Password' button is shown under 'My Profile'. Three incorrect login attempts will lock user out of the system as a security precaution. Contact the system administrator to regain access. Accounts become inactive if the user has not logged into STARS for 60 days or more. STARS sessions time out after 30 minutes of inactivity and the user is logged out.

Upon setup in the SDS, a username is tagged with identifying information that tailors retrievable information data and editing capabilities to meet user needs. Therefore, the SDS will only display community and project information in which the user is associated. Some users are limited to read-only access and specific data may be available for editing within specified timeframes only.
The levels of access to the SDS, beginning at the lowest level, are as follows:

- Community—User access for just the communities assigned
- Field Office (Alaska Regional Health Organizations)
- District (ANTHC staff and VSW Staff)
- Area (ANTHC Project Planning Staff and VSW Leadership)
- IHS Area (Alaska IHS Residual)
- IHS Headquarters

Logging into the SDS

To enter the STARS databases and access the SDS, follow these steps:

1. Go to https://wstars.ihs.gov
2. Under the SELECT AN AREA map on the right side of the page, click Alaska on the map or click Alaska Area.

3. Log in using a username and password. After logging in, the Alaska Area Home Page, as shown in Figure 1, will open.

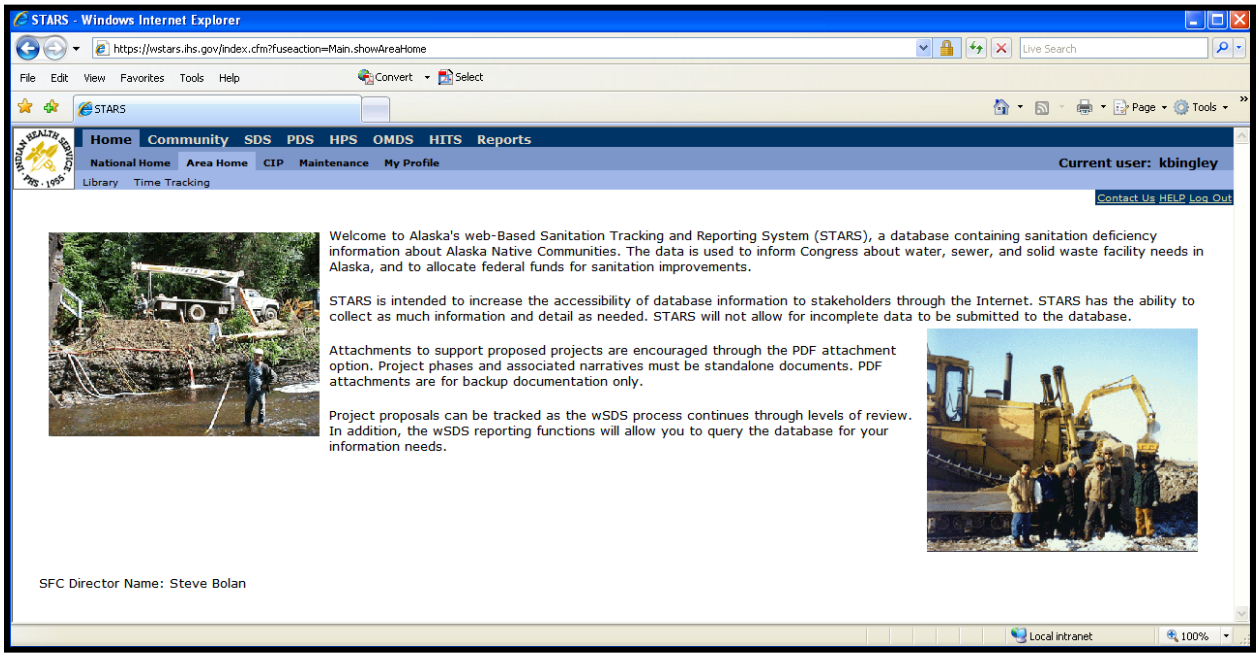


Figure 1: The Alaska Area home page in the SDS.
To return to this page at any time during an SDS session, click on the 'Home' tab.

STARS Library Function

The STARS National Library function is found on the opening home page of each Area and directs the user to the National Library as shown in Figures 2 and 3. The 'Library' tab opens a window that allows the user to search for uploaded documents by key words, title, Area, category, or attachment ID. Additionally, documents belonging to other Areas can be viewed.

Types of documents attached at the National Library level are those of interest to the national program and personnel, such as Area memorandums of agreement, general specifications, guidance and instruction documents, and interagency agreements. Individual project supporting documents should not be attached at the National Library level. Instead, they should be attached in SDS under the Project Details tab. All documents to be attached at the National Library level must be approved by the Area Administrator. For the Alaska Area, the Administrator is Steve Bolan, IHS SFC Director (729-3711).

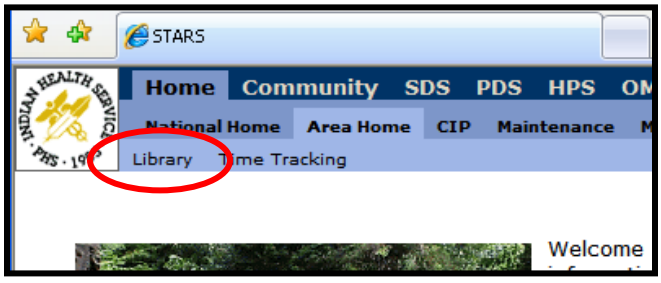


Figure 2: The National Library Tab in the SDS.
To search the National Library, click 'Library' under the 'Area Home' tab as shown by the circle above.

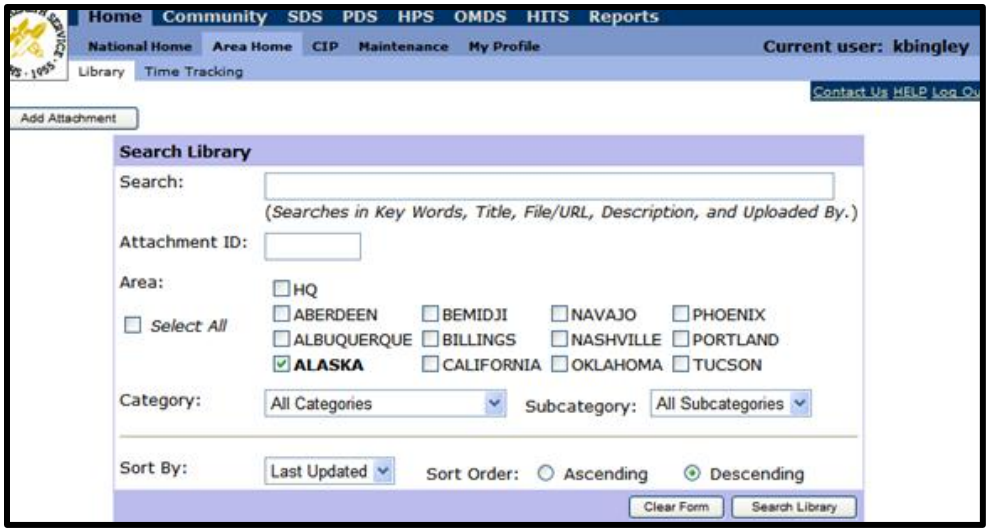


Figure 3: The Search Library Page

Various documents, including samples of Area memorandums of agreement, general specifications, guidance and instruction documents, and interagency agreements can be found using this search. Individual project supporting documents should not be attached in the library, but instead attached in the SDS under the 'Project Details' tab.

Inputting SDS Data

To enter the SDS database and begin inputting data, follow these steps:

1. Log in to the SDS and click the 'SDS' tab at the top of the page, which opens the Project Filter page as shown in Figure 4.

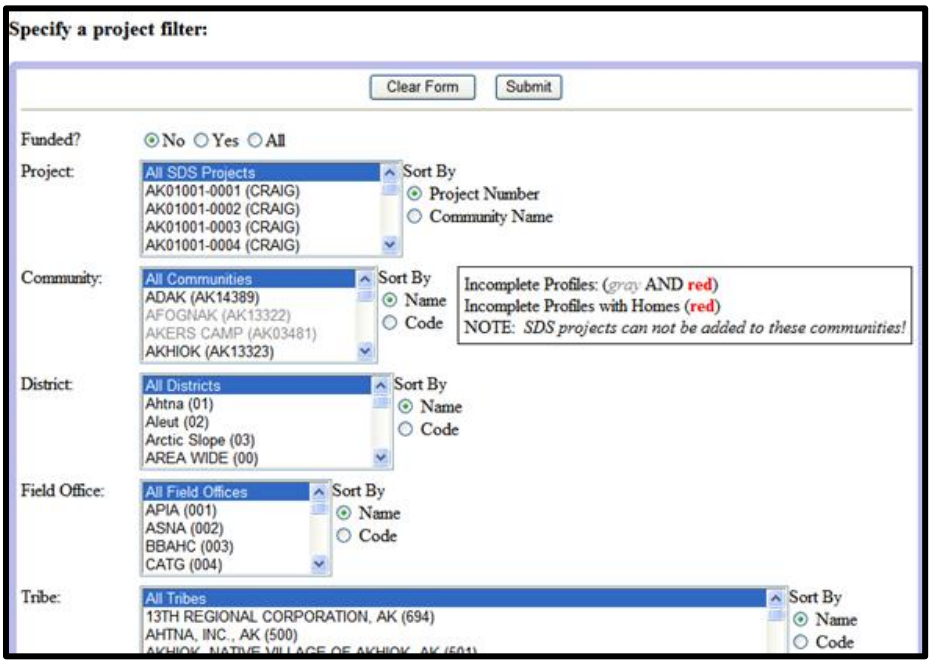


Figure 4: The Project Filter Page in SDS

The SDS Project Filter page allows the user to filter by Project, Community, District, Field Office, Tribe, etc. in order to view projects. Filtering from this page opens a Project List page that shows all available projects according to the criteria chosen. Individual permissions (or access level) can vary the search outputs.

2. Select filtering criteria and press the 'Submit' button at either the top or bottom of the page. As shown in Figure 5, a list of projects matching the filter will be displayed. To return to the 'Filter' page, click the 'Change Filter' button.

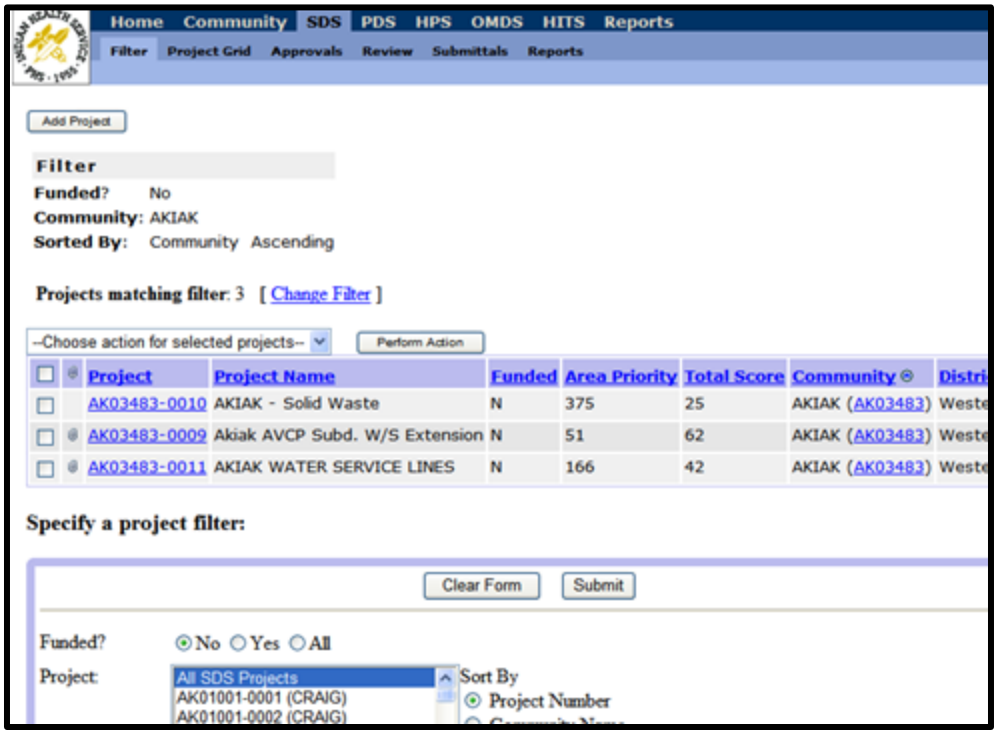


Figure 5: The List of Projects Matching the Filter

For information about the projects or communities displayed, click the blue underlined links.

3. While some users may have 'Read Only' access, others can click the 'Add Project' button to start a new project or click an existing project to edit it.

Adding a New Project

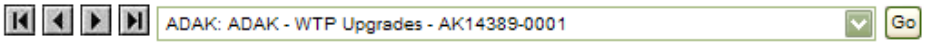
To add a new project, click the 'Add Project' button on the 'Projects Matching Filter' page. The 'Add New SDS Project' page shows information about all project phases currently identified for the community and assigns a new SDS Project Number as shown in Figure 6 on the following page. Click the 'Save Project' button once the information is verified to be correct.

Figure 6: Add New Project Page

The 'Add New Project' page saves a new project number. New project data is added by going to the 'Costs' and 'Homes' tabs.

Editing an Existing Project

To edit an existing project, locate that project through filtering and clicking on the project link. The 'Project Details' tab will open as shown in Figure 7 on the following page. To change the description of the existing deficiencies and proposed facilities displayed on the 'Project Details' tab, click the 'Costs' or 'Homes' tabs.

> ⓘ **Note:** At the top of the 'Project Details' tab, a navigational bar (below) allows the user to navigate to a new community without returning the Alaska Area home page.
>
> 
>

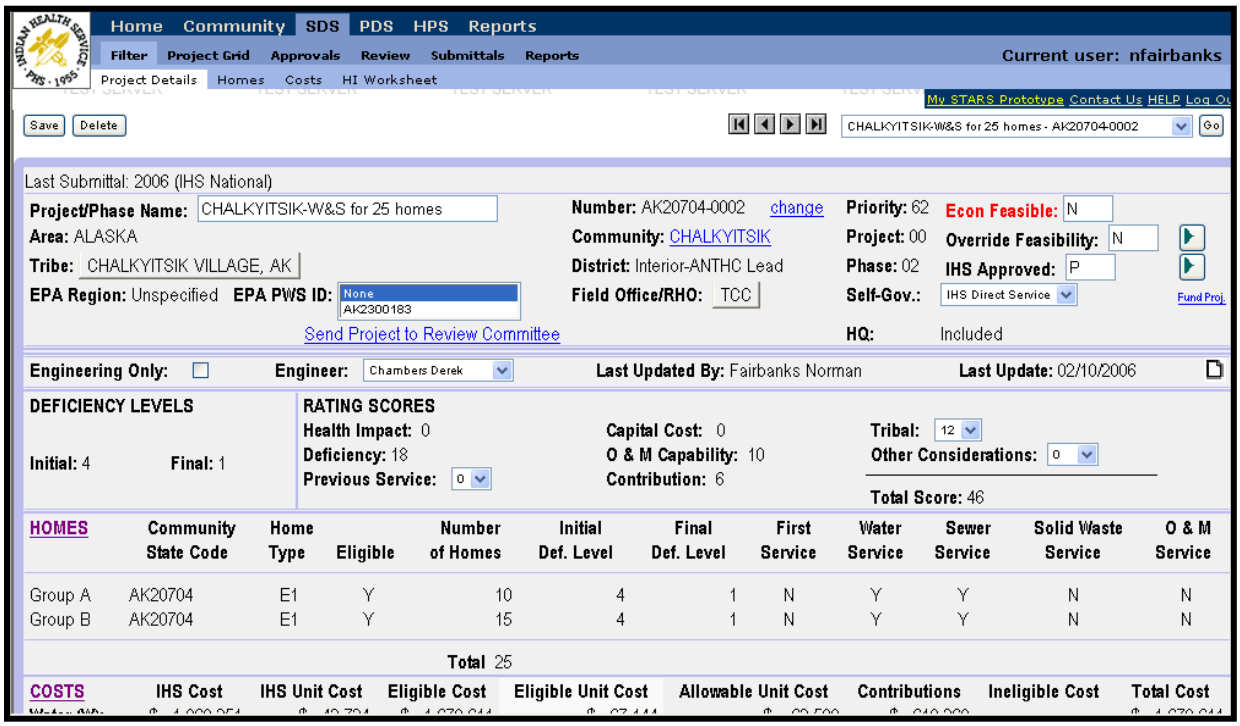


Figure 7: The Project Details Tab

The 'Project Details' tab provides specific project information, which can be further accessed by clicking blue links throughout the page.

Explanation of the Project Details Tab

The 'Project Details' tab is where general information about the community's existing deficiencies and proposed facilities are described. In addition to inputting data on the 'Project Details' tab, information must also be entered on the 'Costs' and 'Homes' tabs. Alternatively, information may also be entered under the CIP tab, which is accessed from the 'SDS' tab.

Only general information about the project scope should be included in the narrative fields on the 'Project Details' tab. Specific information about individual scope elements, including quantities and unit costs, is entered on the 'Costs' page. The size of the text fields for describing the existing deficiencies and the proposed facilities are unlimited. The size of the text boxes can be manipulated by using the (+) and (-) buttons next to the text boxes. All scoring tabulation on the 'Project Details' tab is automatic.

Note: Attachments to support the project data can be attached by using the page icon at the far right of the 'Project Details' tab. If the page icon appears blank (i.e.,), no attachments have been provided. If attachments are included, the page icon appears with lines (i.e.).

Most fields on the 'Project Details' tab require simple inputs, such as numbers or descriptions, that are selected or typed in designated boxes. However, determining the correct information to input can be a complex process. The following sections focus on how to determine what information to enter instead of how to enter the information. For assistance in entering information, please contact the system administrator.

The 'Project Details' tab begins with introductory information that is primarily program generated or entered by Program Services. However, three fields require input at the top of the 'Project Details' tab, which include the 'Name', 'Project', and 'Phase' fields.

The Project/Phase Name Field on the Project Details Tab

The 'Project/Phase Name' field consists of the community name and a descriptive title. This name field is limited to 30 characters. For a community with a long name, abbreviations may be required. The title should match what is described in the 'Proposed Facilities' section of the narrative.

Example: A project that predominately addresses a water source problem in the City of Nenana would be titled Nenana – Water Wells.

The Phase Field on the Project Details Tab

Phases should be progressive with each phase building on the previous phase. Also, when projects are divided into phases, each phase must construct something that serves homes.

Example: One phase of a project cannot only drill wells. Within that same phase, the wells would need to be hooked up to homes.

Solid waste and HUD projects are an exception to the phase rules. Solid waste projects do not necessarily relate directly to water and sewer systems. In addition, restrictions apply when using IHS funding for HUD projects (see the IHS Funding Considerations for HUD/HA Homes section for more information). HUD homes that have been fully purchased by a homeowner can be reclassified as existing and become eligible for listing in the SDS.

If a solid waste project to close an open dump is being described, the preferred order of the phases is to develop a solid waste management plan, provide a solid waste alternative plan, and then close the open dump. If this phasing cannot be accomplished, then the project should be completed in one phase.

ⓘ **Note:** Do not delete funded phases. If a phase is complete, it should be described as funded or completed. Inform the system administrator if phases have not been updated to reflect their current funding status. Also, do not change the phase numbers if a previous phase has been funded. Contact the administrator with questions.

House Data on the Project Details Tab

The 'Homes' section below the 'Deficiency Levels' and the 'Rating Scores' displays information about the number of homes to receive service as outlined in the 'Proposed Facilities' section and as estimated in the 'Costs' section. There may be several groups of homes as some homes may be receiving different types of services than others. This information is automatically updated from the housing data shown on the 'Homes' tab.

The house data is listed as follows:

- State Community Code — Automatically Updated
- Home Type — Automatically Updated
- Initial Deficiency Level — Deficiency Level Prior To Construction
- Final Deficiency Level — Deficiency Level After Construction
- First Service — Yes/No
- Water Service — Yes/No
- Sewer Service — Yes/No
- Solid Waste — Yes/No
- O&M — Yes/No

Checking Number of Homes

The number of homes listed on the 'Project Details' and 'Homes' tabs needs to be equal to or less than the number of homes listed in the Community Deficiency Profile (CDP).

ⓘ **Note:** The total number of homes listed at the bottom of the 'Homes' section of the 'Project Details' tab is not necessarily the number of homes used to calculate the unit cost in the 'Costs' section. For example, there may be 50 homes total but 10 homes are receiving water service and 40 homes are receiving sewer service. The total project may be $690,000, and $690,000 / 50 = $13,800, but the total water cost is $290,000. Therefore, the water unit cost is $29,000 ($290,000 / 10 = $29,000), which is much higher and will lower the capital cost score.

Including HUD and HA Homes in Project Housing Groups

The U.S. Department of Housing and Urban Development (HUD) and Housing Authority (HA) homes may be included in project housing groups if the homes were served to the existing level of the community when constructed and the proposed project indirectly serves those homes. For example, HUD/HA homes can be included in the project home count if the project is constructing community facilities that will also serve the HUD/HA homes.

Example: A new community water storage tank is needed. The number of homes that will be served by the new water tank is 70 E1, 25 H1, 5 H3, and 12 E3 homes. If the 25 H1 homes were served to the level of the other existing homes at the time of construction, then the number of homes to count for this project would be 70+25+5=100 homes. The 12 E3 (Non-Indian) homes cannot be counted at any time.

Example: A project to extend a water main and sewer main to a group of 10 homes is proposed. The 10 homes are made up of 6 E1 and 4 H1 homes. In order to serve all the homes, the mains must run past all of the H1 homes. The service lines to the H1 homes must be paid for out of a contribution to the project. (Service lines to HUD homes cannot be paid for with IHS funding at any time.) The number of homes that can be counted is 10.

Example: A project to extend a water main and sewer main to a group of 10 homes is proposed. The 10 homes are made up of 6 E1 and 4 H1 homes. The H1 homes are at the end of the road and require an extension to serve them. Under this scenario, the H1 homes are not eligible to be served with IHS funding and are not eligible to be included on the house count. These H1 homes could be served with Housing Authority or contributor funding. They would then be treated like a stand-alone HUD project. (See the IHS Funding Considerations for HUD/HA Homes section of the SDS reference materials for more information.)

IHS Funding Considerations for HUD/HA Homes

Previously, U.S. Housing and Urban Development (HUD) and Housing Authority (HA) projects could be listed in the SDS, but not funded by IHS Regular funds. However, the policy was changed on June 8, 1995, per a memo from Rick Barror, SFC Director.

Note: HUD/HA homes may be included in counts for a proposed project if the HUD/HA homes were served to the existing level of the community when constructed and the proposed project indirectly serves those homes. For example, HUD/HA homes can be included in the house count if the project is constructing community facilities that will also serve the HUD/HA homes.

The policy regarding funding HUD/HA homes with IHS Regular funds is described in the SDS Guidelines and in the Sanitation Facilities Construction (SFC) official policy, *Criteria for the Sanitation Facilities Construction Program*. One of the main reasons that the policy was clarified is because it is common to have a community project that includes a mixture of homes (i.e. HUD and existing Indian homes) and no fund contribution is available from the housing authority. The IHS does not want this lack of contributor funding to interfere with its public health responsibilities and keep it from solving the sanitation problem in this community. When HUD/ HA homes are included in the SDS project, directors and other experienced, knowledgeable staff will review the project and ensure that sound judgement is used.

Generally, the SFC policy with respect to funding HUD/HA homes with IHS Regular funds is summarized as follows:

- All sanitation deficiencies for Indian homes should be included in the SDS whether or not the homes are eligible for IHS funding.
- All Indian homes including HUD/HA homes should be included in community profiles.
- IHS funds cannot be used to serve newly constructed HUD/HA homes. This policy is stated in Public Law No: 108-7 (H.J.RES.2), Consolidated Appropriations Resolution, 2003 [2/20/2003 Signed by President], which states "[p]rovided further that none of the funds appropriated to the Indian Health Service may be used for sanitation facilities construction for new homes funded with grants by the housing programs of the United States Department of Housing and Urban Development."
- Generally, IHS funds cannot be used to correct individual on-site HUD/HA home deficiencies. Individual on-site HUD/HA homes are managed by tribally designated housing entities (TDHEs) where the homeowner does not hold the title.
- If existing HUD/HA homes were adequately served with HUD funds when they were constructed and a new community deficiency arises (e.g. new regulations like the Arsenic Rule or another development that makes the existing sanitation facilities inadequate), the HUD/HA homes can be listed as IHS eligible homes in the SDS and the new community facilities can be constructed with IHS Regular funds.
- If existing HUD homes contributed to or created the deficiency (e.g. they were not adequately served originally or were constructed with poor design), then HUD/HA needs to contribute a pro-rata share of funding to the new project.

EPA Funding Considerations for HUD/HA Homes

The Environmental Protection Agency (EPA) uses the SDS to prioritize its annual capital funding. EPA funding from the Clean Water Act can be used for community wastewater projects and Safe Drinking Water Act funds can be used for community water projects. EPA funding cannot be used to fund in-house plumbing or solid waste improvement projects.

EPA funds can be used to serve HUD/HA homes with mainline services in instances when the houses may not be eligible for IHS Regular funding. In this case, the work on the HUD/HA houses should be included in the SDS as a stand-alone project so no confusion regarding the project's eligibility for IHS funding exists. HUD narratives should be prepared for both community water and sewer facilities. A commitment is needed for the provision of service lines and in-house plumbing by others for these projects. For instances in which HUD/HA homes are eligible for IHS funding, see the IHS Funding Considerations for HUD/HA Homes section for more information. HUD projects to serve commercial, institutional, or industrial entities are not eligible for IHS funding or inclusion in the SDS.

Cost Data on the Project Details Tab

The 'Costs' section contains the estimated cost of the proposed project. The cost estimate should be as accurate as possible as the estimated cost will equal the amount funded. Only eligible IHS costs are to be considered in the cost estimate. Estimates should be based on reasonable assumptions in case they are challenged. The default unit costs have been updated and give a reasonable estimate of the project. Costs that vary from the default unit costs by more than what is indicated below must be justified and attached to the project.

The fundable range refers to the top 40 scoring projects. For projects that score within the fundable

range, the cost estimate should have a variance of no more than +/-10%. For projects that score outside the potential funding range, the cost estimate should have a variance of no more than +/- 25%. However, it is expected that the best possible estimate will be supplied. Additional guidance on unit cost estimates is provided in the Capital Cost Score Section of this manual.

Table 1 below depicts the accuracy required for each type of project — fundable and feasible, feasible but unfundable, and infeasible — and the level of detail required for the cost estimates.

Project Type	Required Accuracy and Detail	
	Unit Quantities	Unit Costs
Projects within the fundable range In Alaska, the fundable range is defined as the top 40 scoring projects	Projects shall include a detailed unit cost estimate that includes unit quantities from Table 2. Engineers may wish to include additional unit quantities depending on the project scope.	Cost estimates should be accurate to within +/-10% of actual costs
Feasible, but unfundable projects Projects at or above 30 points total score, but not in the top 40 scoring projects	Projects shall include a detailed unit cost estimate that includes unit quantities from Table 2. Engineers may wish to include additional unit quantities depending on the project scope.	Cost estimates should be accurate to within +/-25% of actual costs
Infeasible projects Projects with a score of less than 30	Projects shall include a detailed unit cost estimate that includes unit quantities from Table 2. Engineers may wish to include additional unit quantities depending on the project scope.	As accurate as possible

Table 1: The Accuracy and Level of Detail Required for Each Type of Project
Note that fundable and feasible projects require cost estimates accurate to +/-10% and detailed cost estimates.

Clarifying Unit Cost Calculation

The unit cost calculations and Capital Cost score are determined as follows:

- ***Capital Cost –*** The capital cost score is automatically calculated based on a comparison of the proposed project's unit cost and the average unit cost for the provision of all water, sewer, and solid waste services. Unit cost is defined as the total amount of IHS funding divided by the total number of IHS eligible homes.
- ***Feasibility –*** In order for a project to be considered economically feasible, the percentage of total allowable unit costs for each category and deficiency level must be below a designated threshold percentage. Allowable unit costs are calculated differently than unit costs for capital cost scoring. Allowable unit costs are calculated by dividing the total amount of IHS funding plus all contributions by the total number of IHS eligible houses. A project's feasibility status is shown in SDS on the top right corner of the 'Project Details' tab in the 'Economic Feasibility' box.

ⓘ Note: General or lump sum unit costs are no longer allowed. If the user would like to list a project to describe its unmet needs but does not expect it to be funded, default unit costs should be used.

Projects that are classified as fundable and projects described as feasible but unfundable require detailed cost estimates that include accurate phase code assignments, scope items, facility names and unit quantities. The phase codes, scope items, facility names and unit quantities are listed in Table 2 below.

Water Source			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
W-BW	Well, Buried	Ground water well	Ea.
W-SW	Surface Water Source	Surface water gallery	Ea.
W-SW	Surface Water Source	Surface water impoundment	Ea.

Water Treatment			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-FF	Freeze Back Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
W-WP	Water Treatment Plant	Treatment plant, new, no foundation	Sf.
W-WP	Water Treatment Plant	Treatment plant, rehabilitation	Ea.

Water Distribution			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-CF	Concrete Foundation	Foundation - concrete foundation	Ea.
F-FP	Foundation Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
C-IH	In-House Plumbing	In-house water plumbing	Ea.
M-IM	Garage/Shop	Shop / garage, no foundation	Sf.
C-IU	Utilidor	Utilidors, aboveground	Ft.
W-BD	Buried Distribution Mains	Mains, direct bury	Ft.
W-BL	Buried Service Lines	Service lines, direct bury	Ft.
W-SD	Surface Distribution Mains	Mains, above ground	Ft.
W-SL	Surface Service Lines	Service lines, above ground water	Ft.
W-WT	Water Tank	Water storage tank, no foundation	Gal.
W-WO	Water Other	Booster station	Ea.
W-HS	Haul Systems	Haul vehicle	Ea.
W-HS	Haul Systems	Watering point	Ea.

Water Other			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-CF	Concrete Foundation	Foundation - concrete foundation	Ea.

Water Other			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-FP	Foundation Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
M-BW	Boardwalk	Boardwalk, water related	Ft.
M-DS	Design/Master Plans/Feasibility Studies	Water study	Ls.
M-IR	Roads (Local Gravel)	Road, water related	Ft.
C-WA	Washeteria	Washeteria, water portion, no foundation	Sf.
W-WO	Water Other	General estimate	Ls.
W-WO	Water Other	Other, water	Ls.

Sewer Treatment			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
S-SS	Individual Septic System	Septic tank, drain field, individual. house	Ea.
S-CD	Community Drain field	Drain field, community	Sf.
S-CS	Community Septic	Septic tank, community	Ea.
S-LG	Sewage Lagoon	Lagoon, sewage, borrow local material	Ac.
S-OO	Ocean Outfall	Ocean outfall	Ft.
S-SO	Sewer Other	Septic tank pumper	Ea.
S-SO	Sewer Other	Treatment plant, sewage	Ea.

Sewer Collection			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-FF	Freeze Back Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
M-IH	In-House Plumbing	In-house sewer plumbing, gravity	Ea.
M-IH	In-House Plumbing	In-house sewer plumbing, vacuum	Ea.
M-IM	Garage/Shop	Shop / garage, no foundation	Sf.
M-IU	Utilidor	Utilidors, above ground	Ft.
S-BF	Collection, Buried Force Main	Force mains, direct bury	Ft.
S-BC	Collection, Buried	Mains, direct bury	Ft.
S-BL	Buried Service Lines	Service lines, direct bury	Ft.
S-LS	Lift Station	Lift station	Ea.
S-SF	Surface Collection Force Main	Force mains, above ground	Ft.
S-SC	Surface Collection	Mains, above ground	Ft.
S-SL	Surface Service Lines	Service lines, above ground	Ft.

Sewer Collection			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
S-VP	Vacuum Plant	Vacuum station, no foundation	Sf.
S-HS	Haul Systems	Haul vehicle	Ea.
S-HS	Haul Systems	Honeybucket haul stations	Ea.

Sewer Other			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
F-CF	Concrete Foundation	Foundation - concrete foundation	Ea.
F-FP	Foundation Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
M-BW	Boardwalk	Boardwalk, sewer related	Ft.
M-DS	Design/Master Plans/Feasibility Studies	Sewer study	Ls.
M-IR	Roads (Local Gravel)	Road, sewer related	Ft.
S-SO	Sewer Other	General estimate	Ls.
S-SO	Sewer Other	Other sewer	Ls.
C-WA	Washeteria	Washeteria, sewer portion, no foundation	Sf.

50/50 Water and Sewer			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
C-IH	In-House Plumbing	In-house sewer plumbing, gravity	Ea.
M-IM	Garage/Shop	Shop / garage, no foundation	Sf.
C-IU	Utilidor	Utilidors, above ground	Ft.
M-BW	Boardwalk	Boardwalk, sewer related	Ft.
M-DS	Design/Master Plans/Feasibility Studies	Sewer study	Ea.
C-WA	Washeteria	Washeteria	Ea.

Solid Waste Plan (A), Closure (B), or Development (C)			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
L-LO	Landfill Other	Management Plan, Solid Waste	Ls.
L-LC	Landfill Closure	Closure, solid waste site	Ac.
F-CF	Concrete Foundation	Foundation - concrete foundation	Ea.
F-FP	Foundation Piles	Foundation - freeze back piles	Sf.
F-GF	Conventional (Gravel) Foundation	Foundation - conventional, local gravel	Sf.
F-TF	Thermosyphen Gravel Pad	Foundation - thermosyphen gravel pad	Sf.
L-LD	Landfill Development	Development, solid waste site	Ac.
M-BW	Boardwalk	Boardwalk, solid waste	Ft.

Solid Waste Plan (A), Closure (B), or Development (C)			
Phase Code	**Scope Item**	**Facility Name Selection in SDS**	**Units**
M-DS	Design/Master Plans/Feasibility Studies	Study, solid waste	Ls.
M-IM	Garage/Shop	Shop / garage, no foundation	Sf.
M-IR	Roads (Local Gravel)	Road, solid waste	Ft.
L-LO	Landfill Other	Equipment, solid waste	Ls.
L-LO	Landfill Other	Bailing facility, solid waste	Ls.
L-LO	Landfill Other	General estimate	Ls.
L-LO	Landfill Other	Incinerator, solid waste	Ea.
L-LO	Landfill Other	Other solid waste	Ls.

Table 2: Phase Codes, Scope Items, Facility Names, and Unit Quantities for Cost Estimates of SDS Projects

Table Key:						
	Ea.	=	each	Sf.	=	square feet
	Gal.	=	gallon	Lf.	=	linear feet
	Ac.	=	acre	Ls.	=	lump sum

ⓘ Note: Do not indicate a separate cost for O&M improvements. The cost of O&M improvements should be factored into the water, sewer, and solid waste costs.

Solid waste projects to close open dumps must provide detailed cost estimates for solid waste master plans and the closing or upgrading of existing sites. These estimates can be listed with the appropriate project phases if the project has been separated into phases. When estimating the cost for comprehensive solid waste management plans, Section 4002(b) of the Solid Waste Disposal Act requires the following as a minimum to be accomplished:

- Identify the responsibilities of local and federal authorities for implementing the plan.
- Prohibit the establishment of new open dumps.
- Provide for closing or upgrading of all existing open dumps.
- Provide for the establishment of regulatory powers as may be necessary to implement the plan.
- Provide that no local government shall be prohibited from entering into long-term contracts for the supply of solid waste to resource recovery facilities.
- Provide for resource conservation or recovery and for the disposal of solid waste in sanitary landfills or for any combination of practices as may be necessary to use or dispose of the waste in a manner that is environmentally sound.

When estimating the cost of closing or upgrading existing sites, remember that the dumps must be brought into compliance with applicable federal standards. Closure refers to “the termination of operations at open dumps on Indian land or Alaska Native land and bringing such dumps into compliance with applicable federal standards and regulations, or standards promulgated by an Indian tribal government or Alaska Native entity, if such standards are more stringent than the federal standards and regulations.” This work includes field investigations, testing, design and on-site work.

Maximum IHS Cost of Projects

No more than two projects are allowed per community per fiscal year with a combined cost not to exceed $4 million. If the total IHS project cost exceeds this limit, additional phases may be required. Exceptions to this maximum cost will be reviewed and approved by the DEHE Senior Director.

Existing Deficiencies on the Project Details Tab

The 'Existing Deficiencies' section should include a concise and detailed listing of the deficiencies to be addressed by the specific project in the respective areas of water, sewer, solid waste, and O&M.

The 'Existing Deficiencies' section is intended to provide specific information to verify that the initial deficiency level coding is correct. This field should identify the magnitude of existing public health problems and their causes. In addition, the narrative should be specific, particularly for higher initial deficiency level projects (3, 4 and 5).

> ⓘ **Note:** The use of such terms as high, low, inadequate, old, etc. should be minimized. In addition, a description of a facility as "having met its useful design life" is not acceptable. The project engineer must describe why the facility is no longer adequate.

For communities with multiple phases, the 'Existing Deficiencies' section should be unique for each phase.

Abbreviations are allowed in this section. Some examples of abbreviations include the following:

- WST for Water Storage Tank
- LS for Lift Station
- $ for Funding
- Fnd. For Foundation
- WSL for Water Service Line
- SSL for Sewer Service Line
- MH for Manhole
- FH for Fire Hydrant
- WTP for Water Treatment Plant
- SWS for Solid Waste Site
- ST/DF for Septic Tank/Drain field System

Proposed Facilities on the Project Details Tab

The 'Proposed Facility' section should describe proposed project facilities, which if funded will eliminate some or all of the deficiencies identified in the 'Existing Deficiency' section and make progress toward the community becoming fully served (deficiency level 1). Each succeeding phase should show a progress photo of, tie into, or build on previous phases and be understandable.

> ⓘ **Note:** Solid waste projects should be separated from other projects and listed in separate narratives. Incremental/nominal solid waste project work is no longer considered a component of water and sewer projects.

Adding Housing Groups Data

This area holds specific housing group information about the homes served by the project. To enter housing group data, follow these steps:

1. Select the 'Homes' tab located near the top of the 'Project Details' tab. Figure 8 shows the 'Housing Groups' data that is displayed on the 'Homes' tab.

Figure 8: The Housing Groups Data

New housing data can be added and existing data can be edited on this tab.

2. To add housing groups, click the 'Add Housing Group' button. To edit housing groups, click the 'Edit' button at the end of the housing group shown.

3. In the boxes provided, select the home type and enter the number of homes to be served. Select the Initial Deficiency Level (IDL) and the final deficiency level (FDL). Add any comments pertinent to the level data.

> ⓘ **Note:** In Alaska the most commonly used home types are as follows:
>
> E1 — Existing Homes
> E3 — Non-Indian Units
> H1 — HUD Housing (HA controlled)

> ⓘ **Note:** The 'IHS Eligible' box will be automatically checked for eligible housing groups entered previously in the SDS.

4. It is likely that multiple housing groups will be required within a single project. To add another housing group, click the 'Add New Housing Group' button and repeat steps 1 through 3.

> **Example:** A project constructs a water storage tank that serves the complete community of 100 homes. In addition to the water storage tank, a sewer main will be constructed to serve 30 of the 100 homes in the community. This project will have at least two housing groups to identify the initial and final deficiency levels for the 100 homes served.

5. After housing group data has been entered, click the 'Project Details' tab to return to the project information.

> **Note:** The housing groups that are identified for a project should not fall outside the limits of the housing that is identified in the Community Deficiency Profile (CDP) for the types of homes and initial deficiency levels for water, sewer, and solid waste. If project homes go beyond the limits for deficiency levels as shown in the CDP, then the numbers for the project homes will be displayed in red.

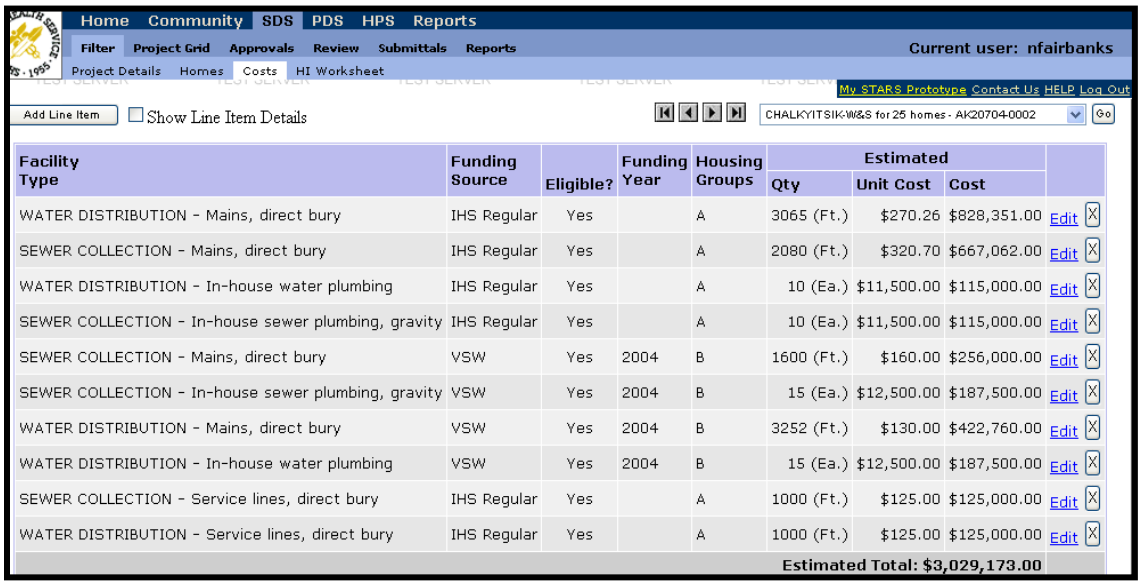
Adding Projects for Non-Native Communities

When adding projects for non-Native communities, the homes should be coded as E3 (non-Native homes). The designation H5 should not be used because this designation indicates that the homes are other HUD funded homes. The 'IHS Eligible' box should not be selected on the 'Line Item Details' screen, and the 'Costs' should be shown as not IHS Eligible.

Adding Costs

To add new costs to a project phase or additional line items, follow these steps:

1. Select the 'Costs' tab located at the top of the 'Project Details' tab. Figure 9 shows the data that is displayed on the 'Costs' tab.



Facility Type	Funding Source	Eligible?	Funding Year	Housing Groups	Estimated Qty	Estimated Unit Cost	Estimated Cost	
WATER DISTRIBUTION - Mains, direct bury	IHS Regular	Yes		A	3065 (Ft.)	$270.26	$828,351.00	Edit X
SEWER COLLECTION - Mains, direct bury	IHS Regular	Yes		A	2080 (Ft.)	$320.70	$667,062.00	Edit X
WATER DISTRIBUTION - In-house water plumbing	IHS Regular	Yes		A	10 (Ea.)	$11,500.00	$115,000.00	Edit X
SEWER COLLECTION - In-house sewer plumbing, gravity	IHS Regular	Yes		A	10 (Ea.)	$11,500.00	$115,000.00	Edit X
SEWER COLLECTION - Mains, direct bury	VSW	Yes	2004	B	1600 (Ft.)	$160.00	$256,000.00	Edit X
SEWER COLLECTION - In-house sewer plumbing, gravity	VSW	Yes	2004	B	15 (Ea.)	$12,500.00	$187,500.00	Edit X
WATER DISTRIBUTION - Mains, direct bury	VSW	Yes	2004	B	3252 (Ft.)	$130.00	$422,760.00	Edit X
WATER DISTRIBUTION - In-house water plumbing	VSW	Yes	2004	B	15 (Ea.)	$12,500.00	$187,500.00	Edit X
SEWER COLLECTION - Service lines, direct bury	IHS Regular	Yes		A	1000 (Ft.)	$125.00	$125,000.00	Edit X
WATER DISTRIBUTION - Service lines, direct bury	IHS Regular	Yes		A	1000 (Ft.)	$125.00	$125,000.00	Edit X
							Estimated Total: $3,029,173.00	

Figure 9: The Costs Tabs

New cost information can be added and existing information can be edited on the 'Costs' tab.

2. Click the 'Add Line Item' button at the top left side of the page.

3. On the 'Line Item Detail' screen, select the facility type, funding source, funding year, and housing groups. Check the 'Eligible?' box if the homes are eligible for IHS funding.

> **Note:** If the standard facility descriptions listed in the drop-down menus do not describe the proposed line item, select 'Other' and the proper category (water, sewer, or solid waste). Then describe the line item in the 'Comments' section.

4. Add the estimated quantity, and the default unit cost will be calculated.

> **Note:** Default unit costs will be generated for all standard facilities based on freight costs, soil types, and standard designs for the community selected. These default unit costs can be overridden. Default unit costs are updated yearly in the SDS program. Unit costs for line items previously entered may need to be refreshed.

5. Add comments that may help identify this scope item.

6. Click the 'Save Line Item' button. Figure 10 shows the 'Line Item Details' screen.

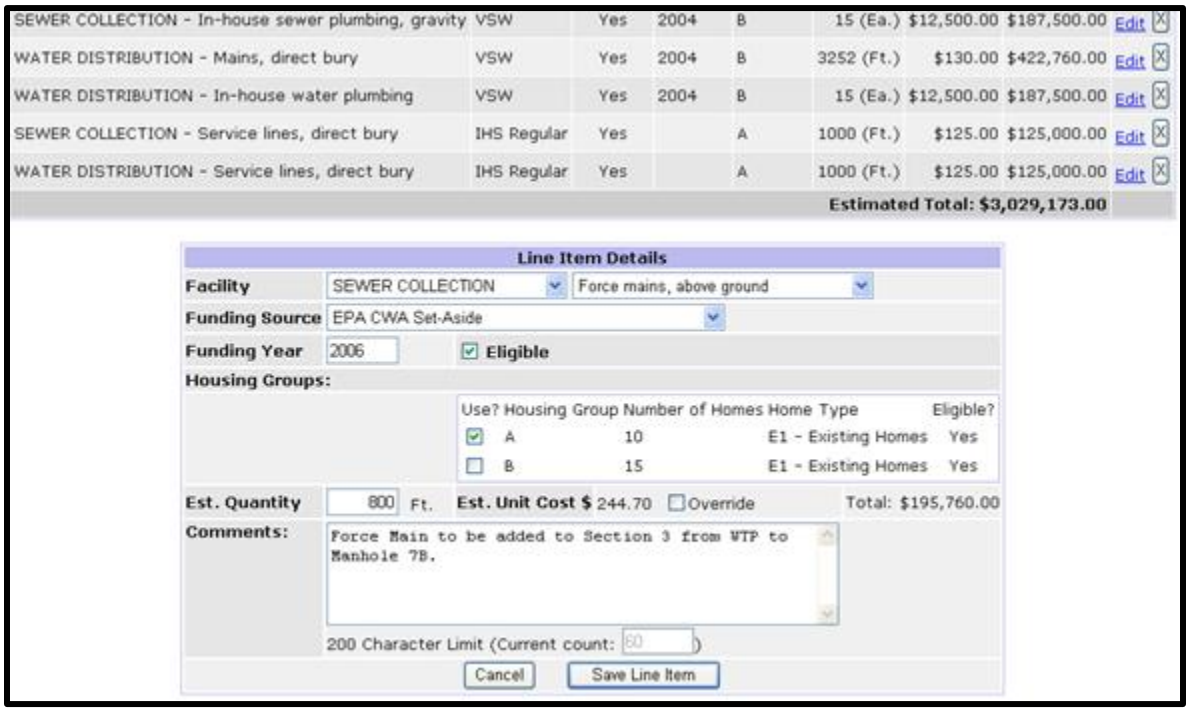


Figure 10: The Line Item Details Screen
Use this screen to add new line item information on the 'Costs' tab.

> **Note:** Details concerning contributed (non-IHS) funds must be provided by selecting the 'Show Funding Comments' box. For a detailed discussion of contributed funds, see the 'Contribution Score' section in the 'Project Details' section of this manual.

Editing Line Item Costs

Once line item information has been added, it can be edited by clicking the blue 'Edit' link on the right side of each line item on the Costs tab.

Deleting Line Item Costs

To delete line items, click the red at the right side of the line to be deleted on the 'Costs' tab.

Adding Additional Line Item Details and Special Requirements

IHS headquarters is collecting additional information about projects to satisfy queries from other agencies and to secure additional future funding. Additional information about the project can be included by selecting the box located at the top left of the 'Costs' tab. Then click the 'Add' symbol to open the 'Show Special Requirements' box. This function allows the user to identify special requirements, such as compliance with arsenic or lead regulations, that are required for the proposed project.

> ⓘ **Note:** Attachments to support additional line items and special requirements can be attached by using the 'Attachment' tab. If attachments are included, the page icon appears with lines (i.e.).

Saving and Undoing Changes

Save changes often by pressing the 'Save' button located at the bottom of the page. When the database is saving, no data can be entered. Once changes have been saved, data can again be entered into the SDS. If the page is switched without saving changes, a prompt will appear with a textbox warning that unsaved data will be lost.

Management Capacity Assessments

It is in the best interest of the state to fund only those projects that are likely to be started and completed in a timely manner. One issue that may significantly delay a project is the lack of demonstrated management and financial capacity to operate and maintain the utility. This capacity is demonstrated by meeting all of the Essential Indicators in a Management Capacity Assessment completed by staff of the Rural Utility Business Advisor (RUBA) program. For the FY10 and forward application cycles, communities are required to have a Management Capacity Assessment completed prior to applying for a CIP project. However, if an assessment has been completed at any time in the past, it must document that all of the essential indicators were met before an application will be considered.

To check if a community has had an assessment completed, request a reassessment in order to document that all essential indicators are met, or schedule an assessment, contact Elizabeth Manfred, RUBA Program Manager at 269-4556 or elizabeth_manfred@commerce.state.ak.us.

Project Scoring

Projects are scored based on several different aspects of the project and circumstances supporting it. These include the projects' health impact, deficiency levels addressed by the project, if the homes served were previously served by other projects, the capital cost of the project, the community's operation and maintenance capacity, the community's water fluoridation status, if other funding sources are contributing to the project, the project's tribal priority, and other considerations. The following sections discuss each of these scoring aspects separately.

The Health Impact Score (0-30 Points)

A health impact (HI) score is assigned to each individual line item for every project in the SDS. The project phase health impact score will be assigned by the program and will be the category that represents the majority of the project cost according to the line items.

The HI scoring methodology is the same system that has been used by the Village Safe Water Capital Improvement Projects program in the past. The engineer or project manager will be responsible for determining the HI score for each cost line item. For top scoring projects, cost line items and associated HI score will be reviewed by the SDS review committee. Table 3 shows the basic scoring framework.

Category	Item	General Description	Points
A	First service	Project provides piped, covered haul, onsite water, or wastewater service for previously unserved homes.	30
B	Regulatory violations	Projects associated with verified facility-related regulatory compliance.	25
C	Essential upgrades	Upgrade or replacement of existing system component(s) that have exceeded capacity or structural integrity and currently compromise the health benefits of the system.	15
D	Beneficial upgrades	Upgrades to increase operational efficiencies, system component upgrades that intermittently compromise, or may affect the health benefits of the system and solid waste facilities.	7
E	Desired upgrades	Upgrades that are not essential or component upgrades as defined above.	0

Table 3: Health Impact Scoring Categories

Use this screen to add line item information on the 'Costs' tab.

To edit HI scores, click on the 'Costs' tab and the blue 'Edit' link on the right side of the line item. Select the correct HI category from the 'HI Tier' drop-down menu.

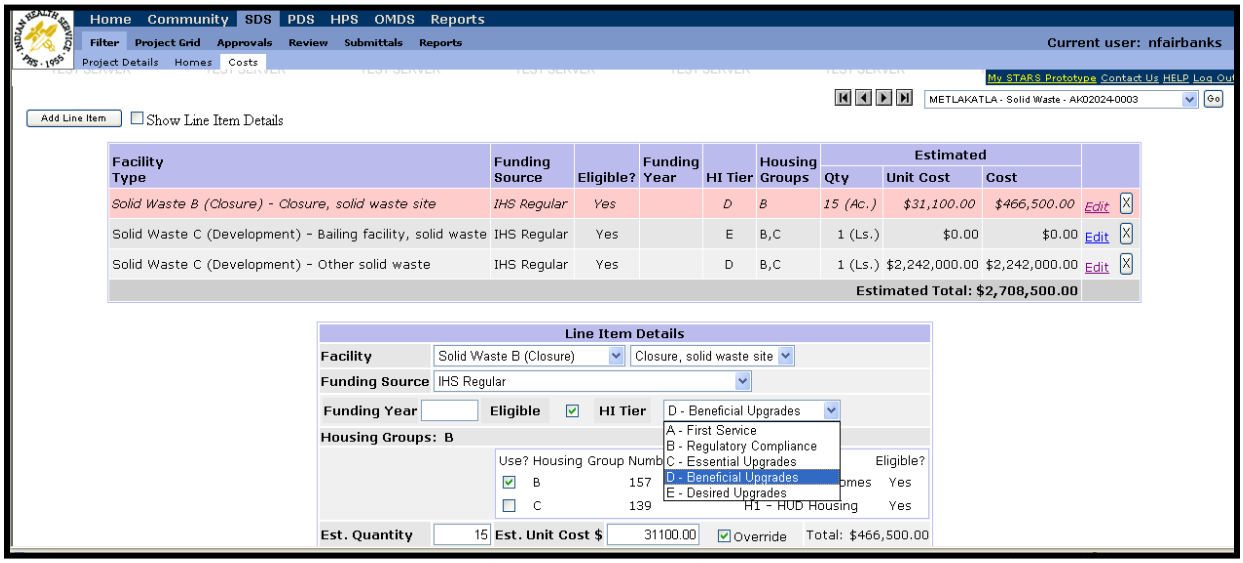


Figure 11: The Health Impact Drop-Down Menu

To access the 'Health Impact' drop-down menu, click on the 'Costs' tab and the blue 'Edit' link on the right side of the line item.

Note: All solid waste projects will be assigned the category D, with the associated point value of 7.

HI Score Category A: First Service Description

Projects categorized as first service provide internally pressurized water or flush toilets for previously unserved homes and will receive 30 HI points. The specific nature of the project is inconsequential as long as it results in new home services that have previously not been available.

Examples of First Service:

- Any project providing piped water or wastewater service that completes water or sewer service (internal pressurized water or flush toilets for previously unserved homes) or completes the last component needed to extend piped service to unserved homes.
- Provision of a large or small haul system.
- Provision of individual wells or septic systems for previously unserved homes.

HI Score Category B: Regulatory Violations Description

Projects addressing documented regulatory violations will receive 25 HI points. A notice of violation or letter from the appropriate regulatory agency is required to receive points in this category. A copy of the notice of violation or letter must be attached. It is important to note that HI points are not awarded for regulatory deficiencies resulting from inadequate or improper operation and maintenance.

Examples of Regulatory Violations:

- Enhanced arsenic removal equipment where multiple samples (at least 3) have shown >10 ppb arsenic.
- Improved filtration capacity for a system that has consistently exceeded turbidity standards.

HI Score Category C: Essential Upgrades Description

Projects replacing failed infrastructure that has exceeded capacity and/or structural integrity will receive 15 HI points. The project must also address a current, continuous health hazard to qualify.

Examples of Essential Upgrades:

- Repair/replacement of a failed 20+ year old lift station.
- Replacement of a severely leaking PVC force main whose structural integrity has been compromised.
- Provision of a sewage pumper truck when one has not been previously provided and where one is not available from a commercial source.
- Treatment/storage capacity upgrades for a community where water rationing has been required.
- Provision of piped, closed haul, or individual wells and drain fields for previously served homes that have since failed.

HI Score Category D: Beneficial Upgrades Description

Projects that do not meet provisions of essential upgrades but address intermittent health concerns or enhance operational efficiency will receive 7 HI points.

Examples of Beneficial Upgrades:

- Any replacement or repair of prematurely failed infrastructure.
- Replacement or repair of a leaking water storage tank in a community where water rationing has not been required.
- Provision of a sewage pumper truck where one is available from a commercial source.
- Provision of a backup well.
- All solid waste projects.

HI Score Category E: Desired Upgrades Description

Projects that do not provide a clear health benefit or enhance operational efficiency will receive 0 HI points. Also, projects that do not meet the criteria for other scoring categories fall within the Desired Upgrades category.

Examples of Desired Upgrades:

- Cosmetic improvements for a washeteria.
- Provision of any non-essential component

Examples of Health Impact Scoring

Health Impact Scoring Example 1:
A new water storage tank (WST) is proposed. The new tank will serve all of the homes in the community. The existing tank does not supply sufficient capacity for recommended storage and is located in a location that does not supply sufficient pressure to all of the homes. A new water main connecting the new WST to the existing system is also being proposed. The majority of homes have previously been served with water service; no regulatory violations have been issued. Because capacity and pressure are lacking, this upgrade qualifies as an essential upgrade and would receive 15 HI points.

Health Impact Scoring Example 2:
A new WST is proposed. The new tank will serve all of the homes in the community. The existing tank is leaking severely and needs to be repaired or replaced. Water rationing has not been required. However, pumping costs are high. This project is a component upgrade and would receive 7 HI points.

Health Impact Scoring Example 3:
An existing WST needs fence and insulation repairs. This project is a desired upgrade and would receive 0 HI points.

Health Impact Scoring Example 4:
A community has an unapproved open solid waste dump. A new site is needed, and the existing site needs to be closed. The proposed work includes a road, excavation, fencing, and a small building. A sludge disposal pit is also proposed. This project is a solid waste project and would receive 7 HI points.

Health Impact Scoring Example 5:
An existing solid waste site needs road improvements, repairs to existing fencing, and cover material. This project is a desired upgrade and would receive 0 HI points.

Health Impact Scoring Example 6:

A circulating water main and vacuum sewer main are planned for an existing subdivision. The existing homes have previously been served with ATV honey bucket and individual water ATV haul systems. The project also provides plumbing to individual homes where no plumbing was previously provided. This project will provide first service to homes with pressurized water and flush toilet systems. This project is first service and would receive 30 HI points.

Health Impact Scoring Example 7:

A water treatment plant (WTP) produces water that does not meet the new arsenic rule. Multiple samples (more than three) have been taken and recorded. The state has issued a notice of violation. The new project proposes arsenic removal equipment, WTP upgrades, and a water main replacement. The majority of work by cost is to add arsenic removal equipment. This project addresses a regulatory violation and receives 25 HI points. Copies of the violations must be attached to the 'Project Details' tab.

Health Impact Scoring Example 8:

The same situation as Example 7 except the majority of work by cost is to replace an existing 2-inch water main with a new 6-inch water main. The existing water main leaks and does not provide adequate water pressure. This project is an essential upgrade and would receive 15 HI points.

Health Impact Scoring Example 9:

A wastewater lagoon has been overflowing, and the effluent does not meet state standards. A notice of violation has been issued by the state. The project would add a new percolation cell. This project is a regulatory violation upgrade and would receive 25 HI points. Copies of violations must be attached to the 'Project Details' tab.

Health Impact Scoring Example 10:

Septic tanks (ST) and drain fields (DF) have failed, and sewage is running on the ground. The project serves 10 homes with new ST/DFs and 3 homes with new ST/DFs where no service existed before. This project is an essential upgrade and would receive 15 HI points. (If the State issued a Notice of Violation to the home owners, then the project could receive 25 HI points.)

Health Impact Scoring Example 11:
A truck haul system to homes that are already set up with pressure water and sewer holding tanks are to be served with piped water and sewer. The majority of homes have nothing wrong with their systems except that they are old. This upgrade is a component upgrade and would receive 7 HI points.

The Deficiency Level Score (0-18 Points)

Below the introductory information on the 'Project Details' tab is the 'Deficiency Levels section. The initial deficiency level for a project is the deficiency level of the majority of the homes by cost to be served. In Alaska, no community homes have an initial deficiency level (DL) of 5 because they all have at least a community water source and/or washeteria. The exception to this may be individual homes that are not located in a community and do not have water or sewer service.

Note: It is probable that a project will include several different deficiency levels. The deficiency level entered into the SDS will reflect the greatest level of service to the most homes by cost.

A brief description of deficiency levels is included in Table 4 below and a more comprehensive and detailed breakdown of deficiency levels is included in the Deficiency Levels appendix to this manual. Note that Table 4 shows both deficiency levels and the scores associated with those levels. Users need to input only deficiency levels, the scores will be automatically calculated.

Initial Deficiency Level	Score	Description of Existing System
1	0	Piped water and sewer to homes.
2	6	System provides sufficient safe water and sewage disposal facilities to maintain good health, but inadequacies exist. (Includes piped systems that are somehow inadequate and water and sewer truck haul systems with storage and plumbing in the home.)
3	12	System does not provide sufficient safe water and sewage disposal facilities to maintain good health. (Includes water and sewer trailer haul systems with storage and plumbing in home.) Most solid waste improvement projects should be classified as initial deficiency level 3.
4	18	Central watering point and/or washeteria only. Pit privies or honey buckets used for sewage disposal.
5	18	No water and sewer facilities.

Table 4: Deficiency Levels by Number and the Associated DL Score
Note that water/sewer haul systems can fit into two deficiency levels. A large truck haul system may have a DL of 2, but trailer haul systems have a DL of 3. Community haul honey bucket systems have a DL of 4. Also note that solid waste projects cannot have an initial deficiency level above 3.

Examples of Deficiency Level Scoring

Example: A community with an arsenic issue problem has a proposed scope of work of a new filter system ($60,000) in a new WTP ($550,000). The arsenic violates an existing MCL and is a deficiency level 4. A new WTP is needed, but is only a deficiency level 2. Since the majority of the project cost is going to the WTP, the deficiency level of the WTP is considered the overall project deficiency level. Therefore, the initial deficiency level for the project is 2.

Example: A community has a water source and a water storage issue. The water source is surface water with inadequate or no filtration, which is a deficiency level 4. The WST is corroding and is in need of repair and repainting, which is a deficiency level 3. The filtration fix cost is $125,000 and the WST repair cost is $130,000. Since $130,000 is more than $125,000, the initial deficiency level for the project is 3.

Example: A water treatment plant needs upgrades. Corrosion control repairs and studies are needed. Also, a room is needed to separate chlorination equipment to comply with current design standards. At the same time, the community would like the water main extended and service lines built to 3 homes. The cost for the corrosion control repairs and studies, which is a deficiency level 3, is $140,000. The cost for the WTP addition, which is a deficiency level 2, is $400,000. The cost for water main extension and service line extension, which is deficiency level 4, is $325,000. The initial deficiency level for the project is 3 because the majority of the cost is deficiency level 3 or above ($140,000+$325,000=$465,000, which is greater than $400,000).

EPA National Primary Drinking Water Standards

The National Primary Drinking Water Standards shown in Appendix L and the National Secondary Drinking Water Standards shown in Appendix M will be used to determine the initial deficiency level for projects that are deficient in these areas. Projects claiming a deficiency level 4 must provide certified lab data for multiple monthly samples over a year to demonstrate that the detection of a contaminant is not a single occurrence or a seasonal event.

The Previous Service Score (0-4 Points)

The National SDS Guidelines working draft published in May 2003 and updated in 2008 states the following about previous service (also known as first service or adequate previous service): “Homes that have never been served by the IHS or funded by any other federal agency in a particular sanitation facilities category (water, sewer, or solid waste) are considered first service homes in that category. A home that has been coded first service in the PDS system in a particular category cannot be coded first service in the SDS system. Homes can only be coded first service for a particular service one time.”

The presumption is that virtually all communities have been served by federal funding for sanitation facilities. Therefore, previous service points are awarded based on reporting by sanitation category. In Alaska, previous service points are assigned as follows:

- Communities never served by IHS or VSW funding receive 4 points.
- All other communities receive 0 points.

Currently, all communities in Alaska have received service and therefore, do not qualify for previous service points.

The Capital Cost Score (-20 to + 16 Points)

The capital cost score is automatically calculated based on a comparison of the proposed project's unit cost and the average unit cost for the provision of all water, sewer, and solid waste services. Unit cost is defined as the total amount of IHS funding divided by the total number of IHS eligible homes.

The average unit cost for the three different regions of Alaska is determined through discussions with IHS Headquarters. The three different regions of Alaska are defined as follows:

- Southern: East of the 141st Meridian (north/south border with Canada)
- Western/Interior: South of the Arctic Circle, West of the 141st Meridian
- Northern: North of the Arctic Circle

An overview of the current total allowable unit costs for each region of Alaska as determined by IHS Headquarters is included in Table 5 below.

Region Name	Definition	Total Allowable Unit Cost*
Southern	East of the 141st Meridian (north/south border with Canada)	$98,500
Western/ Interior	South of the Arctic Circle and West of the 141st Meridian	$130,000
Northern	North of the Arctic Circle	$161,500
* Unit Cost defined as the total amount of IHS funding divided by the total number of IHS eligible homes.		

Table 5: An Overview of Total Allowable Unit Costs as Used to Determine the Capital Cost Score
Note that the allowable unit cost increases as the regions get farther north.

> ⓘ **Note:** Appendix A lists all communities in Alaska with descriptions of their district, code, and total allowable unit cost.

In addition to variable unit costs based on region, different unit cost score tables for projects depending on their initial deficiency level (IDL) exist. Separate tables are used for each region of the state for projects with initial deficiency levels of 2, 3 and 4/5.

To calculate the capital cost score, look separately at the water, sewer and solid waste unit costs and scores, then assign the lowest of the three scores to the entire narrative. The capital cost score is calculated on the IHS unit cost only.

The current unit cost limits for the three regions in Alaska and the various deficiency levels as defined by IHS Headquarters are depicted in Table 6.

Initial DL	Unit Cost Limits*					
	Southern Region		Western / Interior Region		Northern Region	
	Water or Sewer	Solid Waste	Water or Sewer	Solid Waste	Water or Sewer	Solid Waste
1	0	0	0	0	0	0
2	$19,700	$9,850	$26,000	$13,000	$32,300	$16,150
3	$34,475	$14,775	$45,500	$19,500	$56,525	$24,225
4 & 5	$49,250	0	$65,000	0	$80,750	0
* Unit Cost defined as the total amount of IHS funding divided by the total number of IHS eligible homes.						

Table 6: An Overview of Current Alaska Unit Cost Limits by Region and Initial Deficiency Level
Note that the unit cost limits increase as the regions get farther north.

Capital cost points are distributed in light of the following considerations:

- Projects with unit costs less than half the average unit cost for a particular region receive a score of 16 points.
- Projects with unit costs between half the average cost and the average cost receive a score between 0 and 16.
- Projects with unit costs between the average unit cost and double the unit cost receive a score of 0 points.
- Projects with unit costs that are more than double the average unit cost are considered infeasible and are assigned a capital cost score of -20.

> ⓘ **Note:** Appendices B through J show current Alaska capital cost score information by area and deficiency level.

IHS Determination of Project Feasibility

In order for a project to be considered economically feasible, the percentage of total allowable unit costs for each category and deficiency level must be below a designated percentage. Allowable unit costs are calculated differently than unit costs for capital cost scoring. Allowable unit costs are calculated by dividing the total amount of IHS funding plus all contributions by the total number of IHS eligible houses. A project's feasibility status is shown in the top right corner of the 'Project Details' tab in the 'Economic Feasibility' box. Infeasible projects will still be considered for funding if their overall score is above the funding line.

An overview of how IHS Headquarters evaluates economic feasibility is depicted in Table 7. This table is from Appendix A of the National SDS Guidelines.

Initial DL	Percent of Total Allowable Unit Costs		
	Water	Sewer	Solid Waste
1	0%	0%	0%
2	20%	20%	10%
3	35%	35%	15%
4 & 5	50%	50%	0%

Table 7: An Overview of the Percentage of Total Allowable Unit Costs Broken Down by Category and Initial Deficiency Level
Note that the percentage of total allowable unit costs is always less for solid waste.

The Operation and Maintenance (O&M) Capability Score (0-16 Points)

The Operation and Maintenance (O&M) Capability Score is the score that can be the most influenced by community involvement. These criteria provide quantifiable information for scoring O&M capability and also outline areas in which a community can improve in order to maintain safe and sanitary services to residents. The O&M score sheet should be completed by the Office of Environmental Health (OEH) staff working with the Regional Health Organization (RHO). The RHOs are responsible for providing the O&M information for each feasible and fundable project. See the 'Project Detail' page 'Costs' section for more information about determining if projects are feasible and fundable. Only one O&M score sheet should be completed for each community. If the project is not feasible and fundable, then the O&M scoring of the project is not required. The O&M score given for a community is retained within the database, but the information needs to be verified each year by the RHO.

To access the O&M Score Sheet, the RHO representative selects the 'O&M Score' tab after clicking the 'Community Code Number' link. Table 8 illustrates the O&M scoring criteria.

Category	O&M Scoring Criteria		Actual SDS Points
Operator Certification	Primary Operator	The primary operator is certified at the required water treatment level.	5
		OR	
		The primary operator is certified for water treatment at any level.	3
		OR	
		The primary operator is certified for water distribution, waste water treatment, or collection at any level.	1
	Choose one score from the primary operator section and one from the backup operator section		
	Backup Operator	The backup operator is certified at the required water treatment level.	2
		OR	
		The backup operator is certified for water treatment, distribution, or waste water treatment collection at any level.	1
Utility and Financial Management	The utility manager has completed a DCED-approved Utility Management course or other college-level management training course.		2
	Regulatory Compliance—System is not on the current SNC list for any operational-related violations.		4
	Collection rate is 85% or greater.		2
Water System Fluoridation	Communities that have successfully fluoridated their water system for the previous calendar year.		1
	Maximum Score Possible		16

Table 8: O&M Scoring Criteria
The O&M Capability Score is the score that can be the most influenced by community involvement.

Seven Operator Certification points are possible as explained by these scenarios:

- When the primary operator is certified at the required water system treatment level then 5 points are awarded. The water system treatment certification level required is as required by the by the State of Alaska for the equipment installed in the water treatment train.
- If the primary operator is not certified at the required level for the water system, but is still certified at any level OIT or above, then 3 points are awarded.
- If the primary operator is certified for water distribution, wastewater treatment, or collection at any level and does not fall into one of the above categories, then 1 point is awarded. Water distribution certification can only be substituted if no community water treatment exists. Wastewater certification can only be substituted if no community water system such as individual wells with a community collection system exists.
- If the primary operator is not certified at any level and does not meet the criteria stated above then 0 points will be awarded.
- Two points will be awarded if the backup operator is certified at the required water treatment level.
- One point will be awarded if the backup operator is certified for water treatment, distribution, or wastewater treatment collection at any level.
- If no backup operator exists or the backup operator does not have the required certifications, then 0 points will be awarded. The same requirement for substitutions as outlined for the primary operator exists for the backup operator.

Four Utility and Financial Management points are possible as explained by these scenarios:

- If the utility manager has completed a DCED approved Utility Management course or other college-level management training course, then 2 points will be awarded.
- Two points will be awarded if the utility has a collection rate greater than 85%. Collection rate is defined as the total revenue collected divided by the total revenue billed. Evidence of rate structure and collection rates must be attached in order to receive this point. These documents must be no older than three months and be consistent with CIP requirements for this point category. If no collections are made for these facilities, then a brief written explanation must be attached in order to receive this point.
- Four points will be awarded if the system meets regulatory compliance and the system is not on the current significant non-compliance (SNC) list for operational related violations.

Four Regulatory Compliance points are possible as explained by these scenarios:

- If the water system is not on the current Significant Non-Compliance (SNC) list for the Total Coliform Rule, then the project will receive 2 points.
- If the system is not on the current Significant Non-Compliance list for any operation-related violation, then the project will receive 2 points.

One Water System Fluoridation point is possible as explained by this scenario:

- Communities that have successfully fluoridated their water system for the previous calendar year will receive 1 point.

> ⓘ **Note:** To access a directory of all certified water and wastewater operators in Alaska or to search for individual operator information, visit the Alaska Division of Water website at http://www.dec.state.ak.us/water/opcert/index.htm

Optimal Community Water Fluoridation (1 O&M Point)

The IHS and ANTHC DEHE strongly endorse safe and effective community water fluoridation. Oral health is a recognized public health crisis among Alaska Natives and water fluoridation has proven effective at reducing dental disease. Optimally fluoridating water systems incur greater costs and provide additional O&M in order to provide health benefits beyond those required by regulatory authorities. Their efforts not only benefit public health but dramatically reduce treatment costs incurred by healthcare organizations. Beginning with the 2008 SDS cycle, optimally fluoridating water systems will receive 1 O&M point.

In order to receive the 1 O&M point, communities must meet the State of Alaska's "Optimal Fluoridator Status" as documented by the Centers for Disease Control and Prevention's Water Fluoridation Reporting System. In order to meet this standard, systems must meet all three of the following requirements for at least 9 of 12 months in the previous calendar year:

- Adequate daily sampling of fluoride concentration was tested at least 71% of days in a particular month or at least 20 days.
- The monthly fluoride concentration average falls within the control range and the average of daily samples for the month falls within the control range of 0.7 to 1.7 ppm.
- An adequate number of daily samples within the control range, which is at least 75% of daily samples, falls within the control range of 0.7 to 1.7 ppm.

In addition to the previous three requirements, systems must not appear on the EPA Significant Non-Compliance List and must employ a Level I or higher operator certified in water treatment at the time of the application.

> ⓘ **Note:** Fluoridation status is tracked by the State Oral Health Program and the Alaska Tribal Water Fluoridation Program with assistance from the ADEC Drinking Water Program. Communities may call 729-5683 or 269-3405 with questions or to inquire about their fluoridation status.

Exceptions exist for earning the 1 O&M point for water fluoridation. Some communities may not practice water fluoridation for reasons beyond their control and therefore, these communities should not be penalized and will receive the point regardless of fluoridation status. Communities deemed incapable of practicing water fluoridation have a least one of the following characteristics:

- The majority of homes lack piped or large truck haul water service.
- The majority of homes are served by private wells.
- The community has a population of 100 or less.

Communities that have a population of 100 or less can be found in Appendix P, Alaska Rural Housing List spreadsheet. Communities that lack piped or large truck haul water service are found in Appendix Q.

The Contribution Score (0-8 Points)

Points for the contribution score are automatically calculated by the system based on the percentage of contributions by other agencies. Contributor funding from prior years or the current year that comes from the IHS or another federal agency that uses SDS for allocating funds cannot be counted as a contribution. In order for a contribution to be counted toward a project, it must be associated with one or more line items that are an integral part of the project. It is important to note that the SDS project and the matching funds cannot fund the same scope.

Example: Eligible Contributor Funding – A new water storage tank is needed for a community. The project has line items for a water storage tank, tank foundation, and piping to connect the tank to the existing water system. A contribution is shown for the tank foundation. The foundation is an integral part of the project as without it the project would not be complete. Therefore, this contribution would be allowed and counted.

Example: Ineligible Contributor Funding – A new water storage tank is needed for a community. The project has line items for a water storage tank, tank foundation, and piping to connect the tank to the existing water system. A new water source is also needed that includes a well and water main to connect to the existing water system. The new water source and connecting piping are shown as a contribution to the project. Since the water storage project is a stand-alone project, the contribution for the water source cannot be counted and therefore, contribution points would not be allowed.

To determine the contribution score, add the IHS total cost to the total of the other contributions for the project and divide the sum by the total other contribution amount. Table 9 depicts the points awarded for each percentage of other contributions.

Contribution (% of total cost)	Points
50.00% or more	8
43.75% - 49.99%	7
37.50% - 43.74%	6
31.50% - 37.49%	5
25.00% - 31.49%	4
18.75% - 24.99%	3
12.50% - 18.74%	2
6.25% - 12.49%	1
6.24% or less	0

Table 9: Contribution Points Awarded Based on Percentage of Other Contributions
A higher percentage of contribution results in a higher number of contribution points.

Details about the contributor funding must be provided in the 'Comments' section at the bottom of the 'Project Details' tab. If details are not provided, the contributor funding may not be acknowledged, and the contributor points may not be awarded. The following details need to be included in the 'Comments' section:

- The exact funding source; identify the project number associated with the funding.
- The amount claimed as contributor funding.
- The federal or state fiscal year in which the funding is being distributed.
- A brief description of the scope related to the contributor funding.

Please note the following about contribution score determinations:

- A maximum of 8 points will be given to projects with contributions of 50 percent or more of the project cost. The contributed funds *must* be available (i.e. in hand) for expenditure in the fiscal year of the SDS project.
- If a project has been given points for other contributions and the contributions do not materialize for any reason, the proposed project will be rescored and reprioritized.

> **Note:** If a project's contribution is pulled or lowered by any amount, the project's contribution points and capital cost score will be adjusted accordingly. The project would then be considered for funding based on its new scoring. This change in scoring could cause the project to drop out of funding range.

- Typically, a contribution counted in previously funded phases cannot be counted again. Do not attempt to count a contribution twice. However, sometimes it makes sense to count funding for different categories of service in two different fiscal years.

> **Example:** A VSW funded grant for water and sewer can be counted in two years if the water portion is counted one fiscal year and the sewer portion is counted in the following fiscal year.

- A contribution can be banked, meaning that it can be split among categories of work and fiscal years as long as the banking strategy is clearly explained in the 'Project Details' tab.

> **Example:** VSW funds a solid waste (SW) and lift station rehab project. The first SDS narrative could complement the solid waste project by providing solid waste haul and maintenance equipment. The VSW portion of the project for SW work can be applied to this SDS narrative. A second SDS narrative for community water and sewer improvements could use the VSW lift station funding for contributor points. This last funding component would not apply if the lift station work has been completed and the funding is spent. In addition, if the SDS narratives are not clear about how the contributor funding is going to be split, then all of the contributor funding will be applied to the first SDS narrative.

- Contributor funding should correspond to the proposed SDS narrative scope.

Example: Alaska DOT funding for boardwalk improvements to a solid waste site is eligible as contributor funding for solid waste projects only. It cannot be applied to water and sewer projects.

- All IHS projects must primarily serve Native homes. Non-IHS eligible portions of an SDS project should be funded from contributions, which should be clearly described. The non-IHS eligible portion of the project should have no effect on the deficiency level and the SDS project score. For these types of projects, the IHS funding amount that can be indicated in the SDS is only the portion of the project cost associated with improved services to Indian people. The Native and non-Native population figures for each project should be included in the project narratives. These projects are carefully reviewed and require significant justification and documentation if they claim high deficiency levels.

Note: For communities with less than 50% Native population, a pro-rata contribution is required. If this contribution is not available at the time of SDS submittal from the DEHE planning unit, then the project will receive a -20 score. Projects lacking required contributions may remain in SDS, but will not be funded until the contribution is received.

- EPA and HUD projects that are ineligible for IHS funding can be listed in the SDS, but the funding provided by these agencies must be clearly described in the contribution funding section. See the IHS Funding Considerations for HUD/HA Homes and the EPA Funding Considerations for HUD/HA Homes sections of this manual for more information.

Tribal (Priority) Score (0-16 Points)

Projects can be awarded points based on local tribal priorities. Points toward the tribal score are obtained through presentation of SDS proposed projects to appropriate tribal entities for their review and point assignment. Usually the appropriate tribal entity is the Regional Health Organization (RHO).

The RHO assigns tribal points on the 'Project Details' tab. Each RHO should submit tribal points to the IHS representative before the deadline shown under schedule. All tribal points will be entered by the IHS representative. Table 10 depicts the range of tribal points associated with the Tribal entities' priorities.

Points	Priority Level
16	The first or highest priority project
12	The second highest priority project
8	The third highest priority project
4	The fourth highest priority project
0	For all other projects proposed in that region

Table 10: Range of Points Tribal Entities May Assign Projects for Prioritization
Projects marked as high priorities by tribal entities receive the highest Tribal Scores.

In Alaska, wide variations in the number of communities within any one regional area exist. To address this situation, it has been determined that one set of priority scores will be allowed for each 12 communities (plus or minus). A region with 12 communities gets one first priority, one second priority,

etc. A region with 48 communities receives four first priorities, four second priorities, etc. Since prorating is not allowed, a region with 52 communities would receive four first priorities.

In order to be termed a community for the purposes of tribal score points distribution, the following conditions must be met:

- The area must have a federally recognized tribe.
- The area must be included in the Regional Health Organization membership list (this condition does not apply to Independents.)
- The area must be occupied year-round. Occupancy is indicated by the following services/facilities in the village:
  - Regular, commercial air service (for villages off the road system)
  - Post Office
  - Clinic
  - Tribal office with telephone and fax numbers

Once a tribal score has been assigned to a specific community and a specific project phase, the score will not be reassigned. In other words, if the community is successful in obtaining funding from another source for the phase in question, the tribal score will not be reassigned to another project phase for the community or to another community project. Table 11 depicts the current tribal point assignments for Regional Health Organizations (RHOs).

> ⓘ **Note:** Submit tribal points by email to steven.bolan@ihs.gov by July 24, 2013. All tribal points must be assigned by that date or they will be assumed to be zero by the review committee. No other opportunity to assign tribal points will be given until next year.

No. of Communities served by the RHO	No. of Tribal Point Sets granted to the RHOs (1 Set = 16, 12, 8, & 4 Pts.)	RHOs & Corresponding No. of Communities	
1-6	No individual sets *(Note: All of these RHOs/ communities would share 2 sets because their total number of communities is in the 19 – 30 range)*	KANA: CRNA: Chugachmuit: Mt. Sanford: Independents: **Total:**	6 5 4 2 8 (Total) **25 (2 Sets)**
7-18	1 Set	ASNA: APIA: SEARHC: Maniilaq: NSHC:	8 10 10 11 16
19-30	2 Sets	None	0
31-42	3 Sets	BBAHC: TCC:	31 37
43-54	4 Sets	YKHC:	47

Table 11: Current Allocation of Tribal Points Based on the Number of Communities in Each RHO
RHOs with less than 6 communities are grouped with other small RHOs and they share priorities.

Other Considerations Score (-20 to 0 Points)

A range of -20 to 0 points may be assigned after consultation with the ANTHC DEHE Senior Director. Points for this factor will only be assigned in unusual situations. The assignment of these points must be documented.

The main reason negative points would be assigned to a project phase is to preclude funding for more than two phases in one fiscal year to one community. In the current era of multi-agency funding for comprehensive sanitation projects, funding more than two projects in one fiscal year is discouraged.

Additional reasons for scoring in this category could include

- House count data (Community Deficiency Profile) not updated.
- The need to phase projects.
- Coordination with other agencies.
- Project impediments such as legal disputes.
- Backlog of current projects.
- An emergency situation.
- Data relevant to project progress is pending.
- If a contribution is not available for communities with less than 50% Native population
- Significant likelihood that State funding will be delayed due to capacity, planning, or financial issues.
- Violation of RUBA requirements (may be justification for awarding up to -19 points).

Example: If a master plan or study is being conducted and data relevant to project progress is pending, funding may not be requested or may be put off until the results of the master plan or study are known. A -20 score in the 'Other Considerations' category will be assigned to the project until the results of the applicable master plan or study are known. For example, if a project scope is for water lines from a well, but a study is being conducted to determine the well output, the water lines will not be funded until the well output has been substantiated.

The documentation for assigning 'Other Consideration' points will be made jointly by the ANTHC DEHE and the IHS DSFC Directors.

Total Score and Project Funding

After the projects are entered and reviewed and the final scoring is completed, a one-line list will be generated that indicates top projects by score. This list is used to assign funding from the IHS, the State of Alaska, the EPA and any other contributor to the sanitation facilities construction effort. The projects are funded according to score and type of funding.

If several projects have the same total score and funding is not sufficient to fund all of the projects, then the projects will be funded according to the following priority. This priority will only be used when the total scores are identical. The project with the highest health impact score will take precedence. If scores continue to be tied, the project with the highest capital cost score will be funded. If scores continue to be tied, the project with the highest contribution score will be funded. If scores continue to be tied, the project with the highest tribal priority score will be funded. If all of these factors are equal, then the allocation committee will flip a coin and the wining project will receive the funding.

Comments Section

Comments are used in the SDS to provide additional and substantiating information. The sections below discuss specific instances in which comments are used.

Proposed Construction Schedules in Comments

Engineers are required to add the proposed construction schedule in the comments section of the 'Project Narrative' screen for the highest phase of all fundable projects that are forwarded for review. This proposed construction schedule must include a general date for construction initiation, such as spring 2014. Projects that are not scheduled for construction within two years will not be considered for funding during the current year.

Master Plan

If a master plan or study exists for a community and the project is anticipated to be in the fundable range, the sections of the master plan that are applicable to the project need to be attached to the 'Project Details' tab. If no master plan or study is available, then this omission should be noted in the comments section of the 'Project Details' tab. Project managers must ensure that the project scope matches the vision of the master plan. Deviations in scope require an explanation and documentation of community support. An amendment to the master plan with community approval is the preferred method of original master plan deviation.

Adding Attachments on the Project Narrative Screen

All attachments should be put on the 'Project Details' tab.

Projects to Address Compliance Issues

Projects that are submitted to address compliance issues, such as MCL violations or wastewater discharge violations, must attach supporting documentation to the 'Project Details' tab. A sufficient number of tests must be performed to recognize that a violation does indeed exist. Supporting documentation can be a letter from the ADEC or lab results. See the *Deficiency Level Score* section of this manual for further information about MCL violations.

Subprojects and Phasing

Each community in STARS has a unique seven digit community code. For example, code AK23785 is assigned to the Village of Gambell. In the past, projects in SDS were listed by the community code followed by four digits. The first two digits were always shown as 00 and the last two typically indicated the phase number. Phases were often listed in the order the projects were to be funded. Starting in 2011, each project in STARS will receive a unique eleven digit number that includes the community code followed by two digits that represents the subproject and the final two digits represents the phase of the project. An example shown in Figure 12 is AK23785-1001. The first seven digits indicate this project belongs to Gambell and the last four numbers indicate this is subproject 10 and phase 01.

Currently none of the Alaska projects in SDS correctly indicates subprojects or phases. The following series will be used to organize projects into subprojects.

Series 10-19: Water Treatment Improvements (water supply, WTP and WST)
Series 20-29: Sewer Treatment Improvements (WWTP, lagoons, and lift stations)
Series 30-39: Water Distribution Improvements (water only mains, water services lines, and in-home plumbing)

Series 40-49: Sewer Improvements (sewer only mains, sewer services, and in-home plumbing)
Series 50-59: Water and Sewer Improvements (combination water and sewer mains, water and sewer services lines, and in-home plumbing)
Series 90-99: Solid Waste

Figure 12 illustrates how the subproject and phase codes would apply to all of the projects for the community of Gambell. The project titled "GAMBELL – Complete WTP filter upgrade" is a subproject 10 series project with phase 01 shown as AK23785-1001. The project titled "WTP Piping Upgrades" is Phase 02 to project AK23785-1001 and is shown as AK23785-1002. These projects share the same Subproject (10) to show the projects are related to each other but will be funded under different phases. The 10 series also identifies these projects as water treatment improvement projects. The projects titled "GAMBELL – 2.2 MG Water Storage Tank" and "GAMBELL – Horizontal Well and Line" are also considered part of the Subproject series 10 (water treatment improvement) but are not related to AK23785-1001 and AK23785-1002. For this reason they were designated as standalone projects Subproject 11, Phase 01 as AK23785-1101 and Subproject 12, Phase 01 as AK23785-1201. The remaining projects are correctly listed under the different Subproject series related to the proposed scope of work.

> ⓘ **Note:** SDS Report 1.0.0 *SDS Community Summary* is a useful report to quickly allow the proper identification of the correct subproject series for each project.

GAMBELL

Project #	Project Name
AK23785-1001	GAMBELL - Complete WTP filter upgrade
AK23785-1002	GAMBELL - WTP Piping Upgrades
AK23785-1101	GAMBELL - 2.2 MG Water Storage Tank
AK23785-1201	GAMBELL - Horizontal Well and Line
AK23785-2001	GAMBELL - Lift Station Upgrades
AK23785-4001	GAMBELL - Sewer Main M Replacement
AK23785-5001	GAMBELL -Extend W&S serv. Old Town
AK23785-5101	GAMBELL - Scattered W&S Upgrades
AK23785-5201	GAMBELL - Water Conservation
AK23785-9001	GAMBELL - Solid Waste Management

Figure 12: Subproject and Phase Codes for Gambell

Reordering Unfunded Projects

For 2014, all current projects should be updated with the appropriate subproject and phase numbers. Subproject numbers should match the subproject series shown on page 43. Projects are funded based on the SDS score for each of the projects. For example, phase 2 can be funded before phase 1 in the event phase 2 scores higher than phase 1. A project engineer or community can request that negative

points be applied by the SFC Director to a specific project if the phase 2 is not requested by the community at the time the scores are updated in SDS annually.

There are several ways to add subproject numbers and project phases. In SDS, start on the Project Details screen for each project containing a subproject in which numbers or phases must be added or changed, as shown in Figure 13. On the project details page, click on the 'Change' located next to the project phase number. This will open a new screen to edit the project phase number as shown in Figure 14. Change the subproject to match the correct series and phase number and then select 'Change Number'. The process for reordering subprojects and phases in the CIP section of STARS is similar to the SDS instructions. In CIP, the project is first opened as shown in Figure 15. The user then clicks 'Change Number' located next to the project number. This will open up the same screen as described above for changing project codes in the SDS section of STARS.

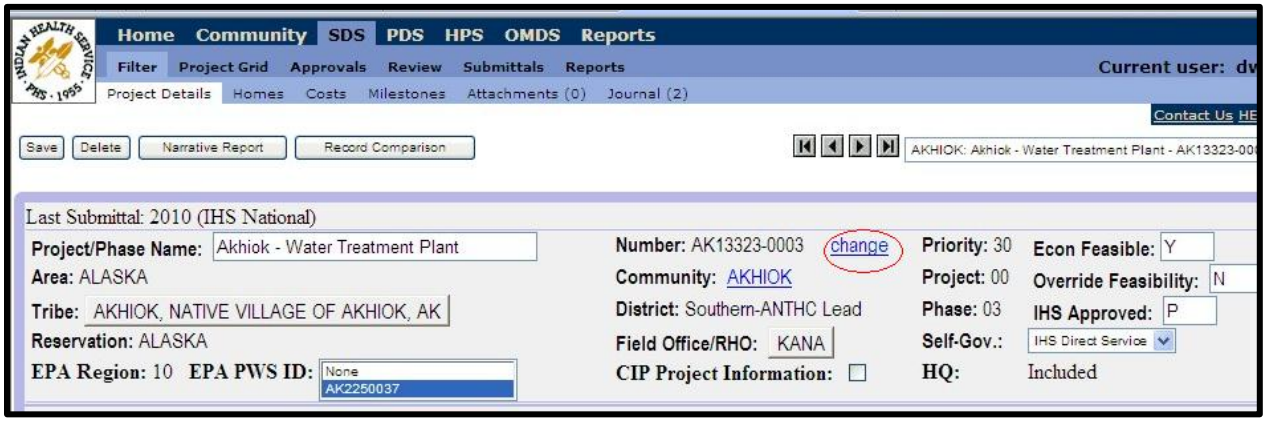


Figure 13: SDS Project Details Screen

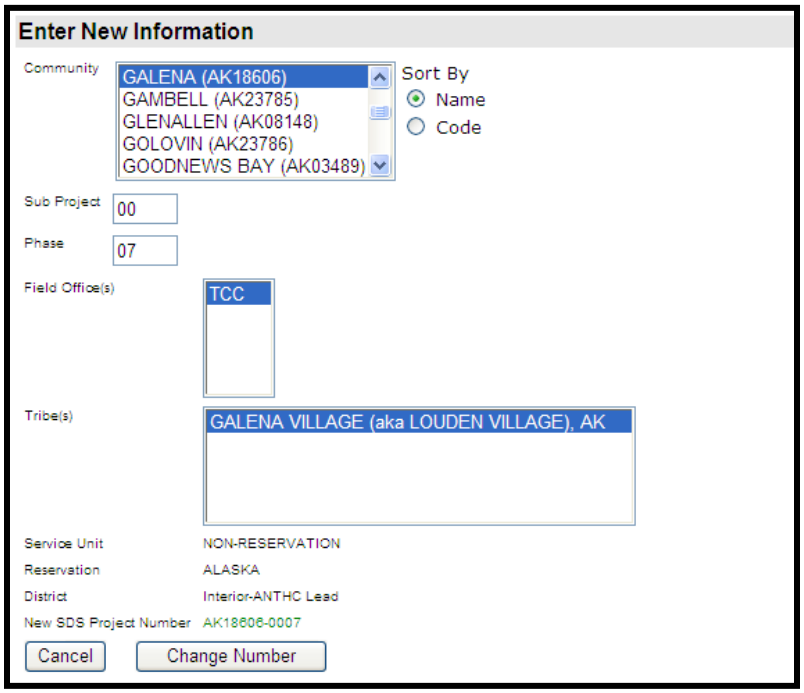


Figure 14: Edit the Project Phase Window in SDS

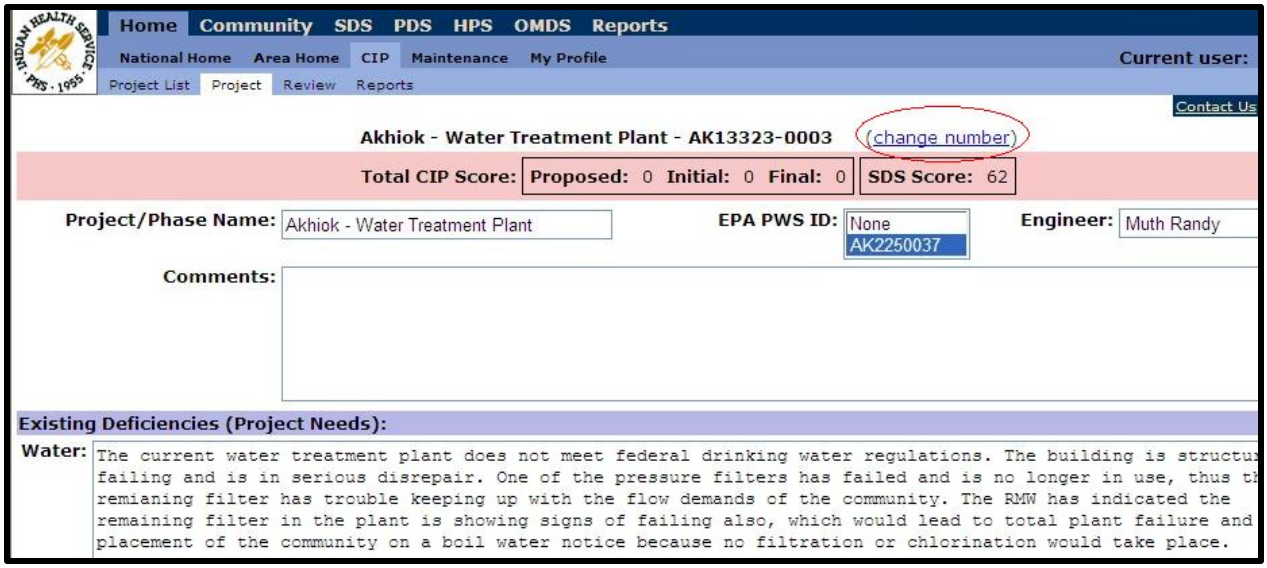


Figure 15: Project Phase Window in CIP

Community Deficiency Profile (CDP) Tab

While the Community Deficiency Profile (CDP) tab is still available, the information has been replaced by the 'HITs' tab.

Housing Inventory Tracking System (HITS) Tab

The IHS is transitioning from the CDP to HITS. Under the CDP tab, the total number of homes and their deficiency levels were reported. In contrast, using the HITS tab geospatially locates the homes and associates the deficiency level which provides an increased level of transparency to the homes data. In order for a home to be reportable and counted for the funding allocation, the home must be in HITS and associated with an SDS project, in addition to the eligibility criteria related to reportable homes and homes counted for the funding allocation. Because HITS and the association of HITS homes with SDS projects has an impact on the Alaska Area's funding allocation, it is critical HITS data is maintained regularly and SDS projects associate HITS homes.

The following outlines the basic steps to add HITS homes to existing SDS projects. To do so, log into wSTARS and locate the SDS project that requires edit.

1. Go to the 'Homes' tab for the SDS project.

Figure 16: The Homes Tab

2. Click on the globe icon to edit a housing group. For this example, HITS Housing Group "A" is chosen for E1 homes to replace the E1 homes in the first row of the Legacy SDS Housing Group.

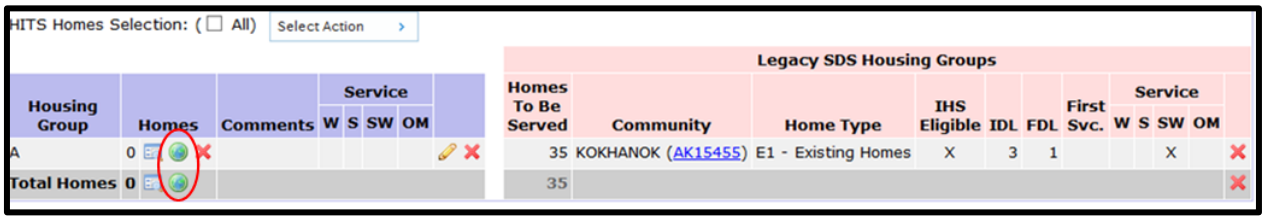


Figure 17: Editing Housing Group

3. The globe icon will bring up the HITS 'STARS Map'.

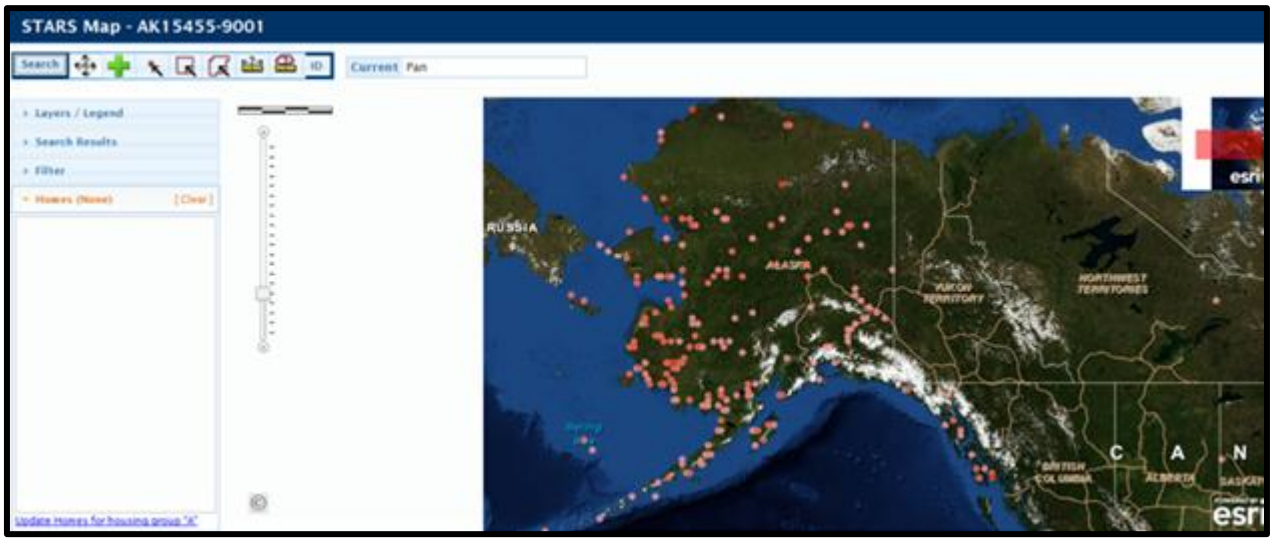


Figure 18: HITS 'STARS Map'

If the map does not automatically zoom into the project's community, conduct a search for it. To locate the community, click on the 'Search' button in the top left corner.

4. To search for the community, enter the city and state. Click 'Go'.

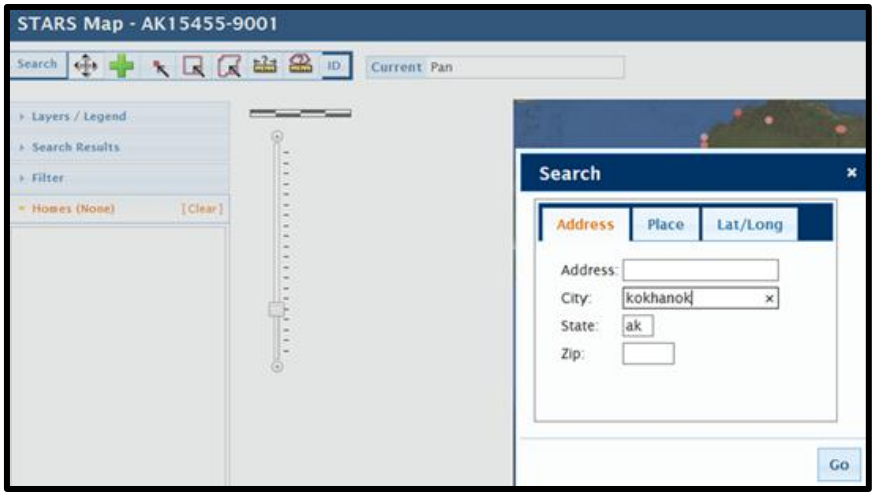


Figure 19: Map Search

5. The map will zoom to the selected community.

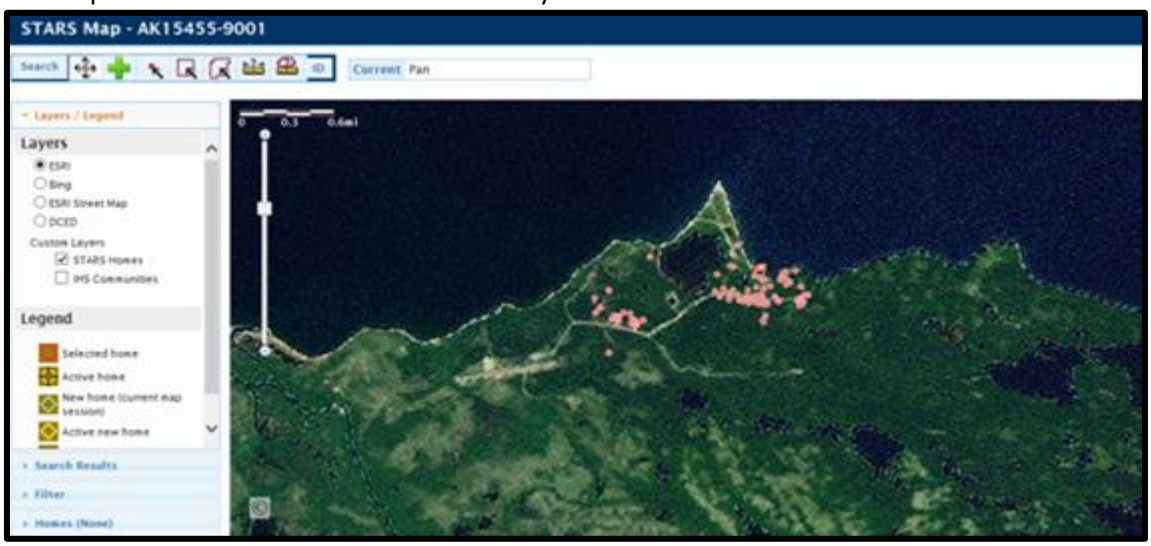


Figure 20: Map of Community

6. To change the Map Layer, select the best layer for viewing the community by toggling the layer in the left side drop down menu.

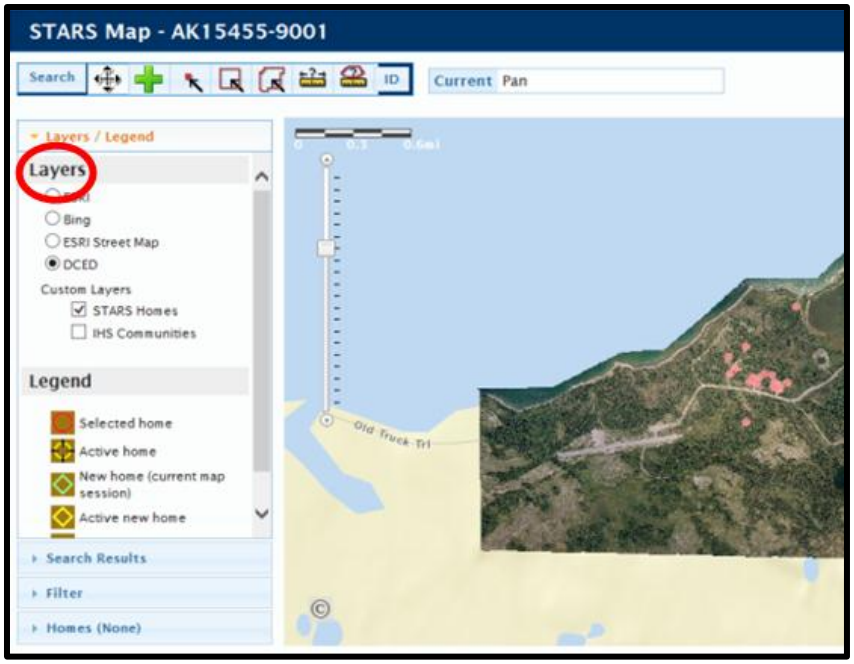


Figure 21: Map Layers

7. Zoom in and locate the homes that will be added to the selected Housing Group

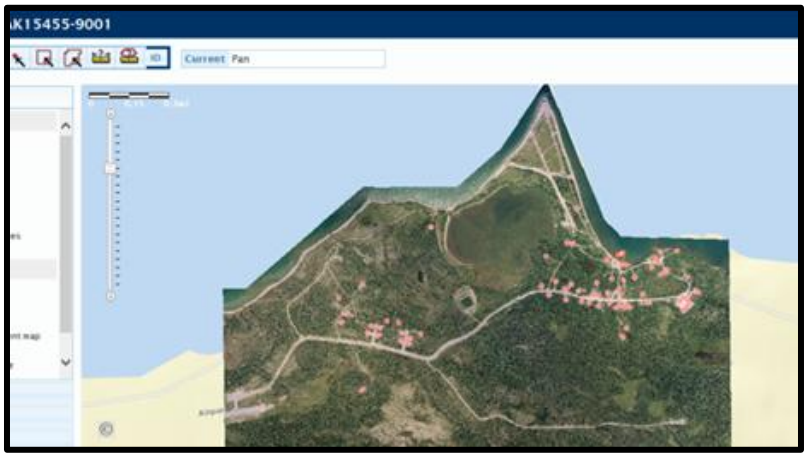


Figure 22: Adding Homes to the Housing Group

8. To add the homes to the Housing Group, select either the 'Select Homes by Rectangle' or 'Select Homes by Polygon' button.

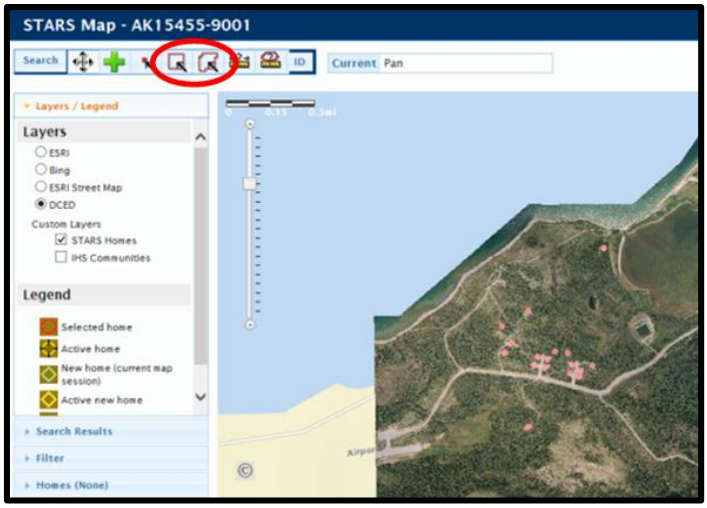


Figure 23: Selecting Homes

9. Select the homes to be added to the Housing Group by highlighting the area where the homes are located.

Figure 24: Adding Homes by Area

10. Once homes are selected, a list will be populated. Look over the list for accuracy. Homes may be deleted by selecting the red line to the right of each row.

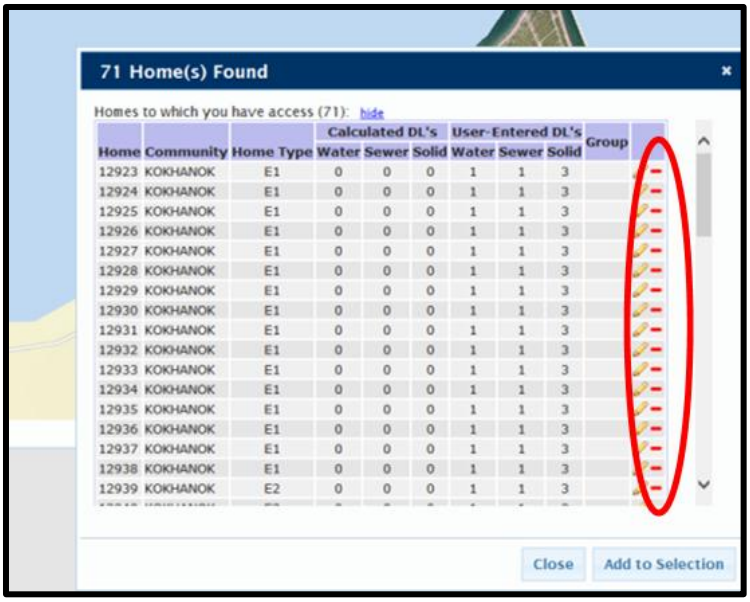


Figure 25: Verifying Homes Selected

11. When the correct homes are in the list, select the 'Add to Selection' button.

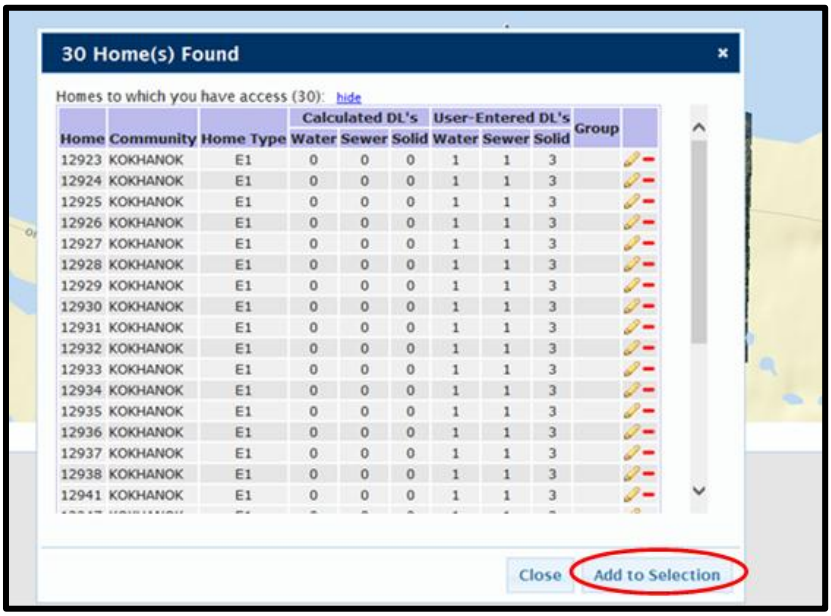


Figure 26: Adding Selected Homes

12. Click on 'Update Homes for Housing Group…' to add the homes to the housing group on the main page.

Figure 27: Updating Homes for Housing Group

13. The homes will populate the selected housing group.

Figure 28: Populating Housing Group

14. Expand the housing group by clicking on the table icon. Verify the correct homes are in the correct Housing Group and delete any homes that do not belong in the group. Compare the number of homes in the new housing group to the Legacy SDS Housing Group. In this example, the new group has 30 E1 homes, while the old group has 35 E1 homes. When differences exist, verify that the group has no missing homes and does not contain homes that do not belong within the housing group.

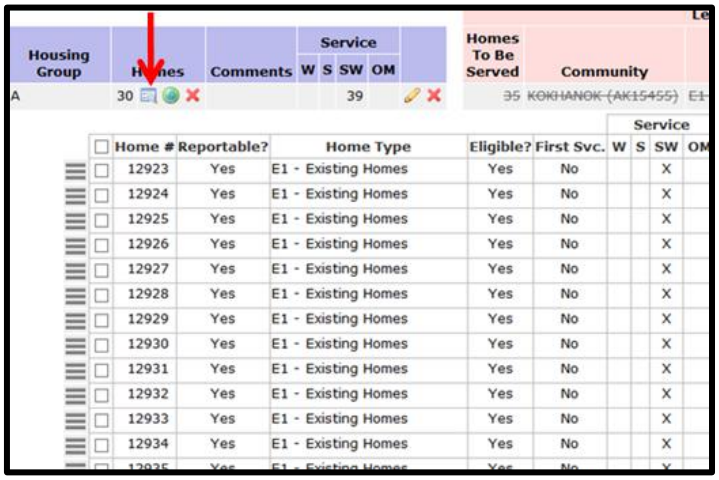
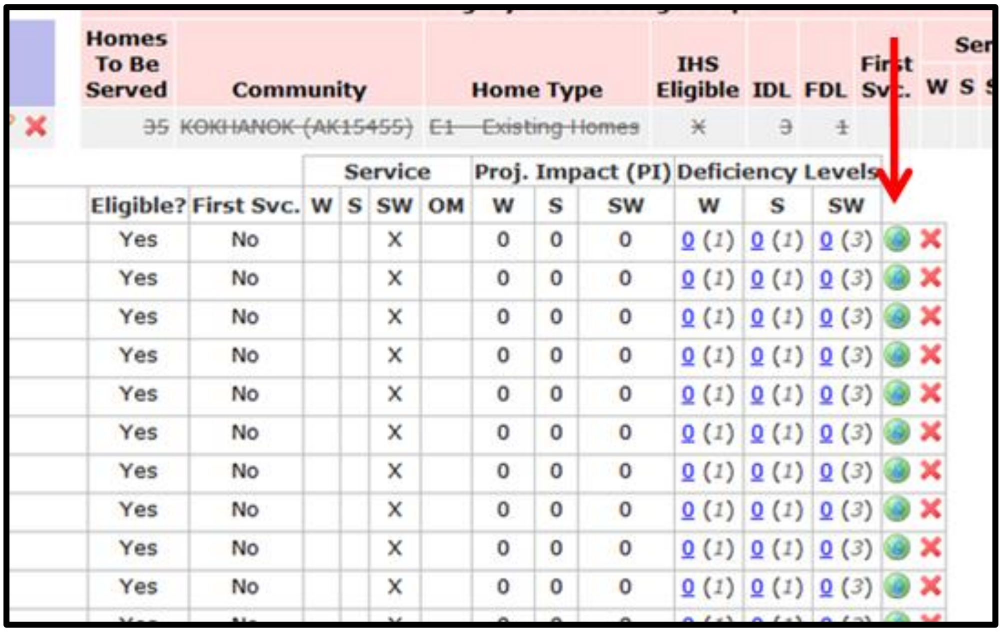


Figure 29: Expanding Housing Group

15. To view information regarding a specific home, click on the associated globe icon to view the specific home on the HITS map.



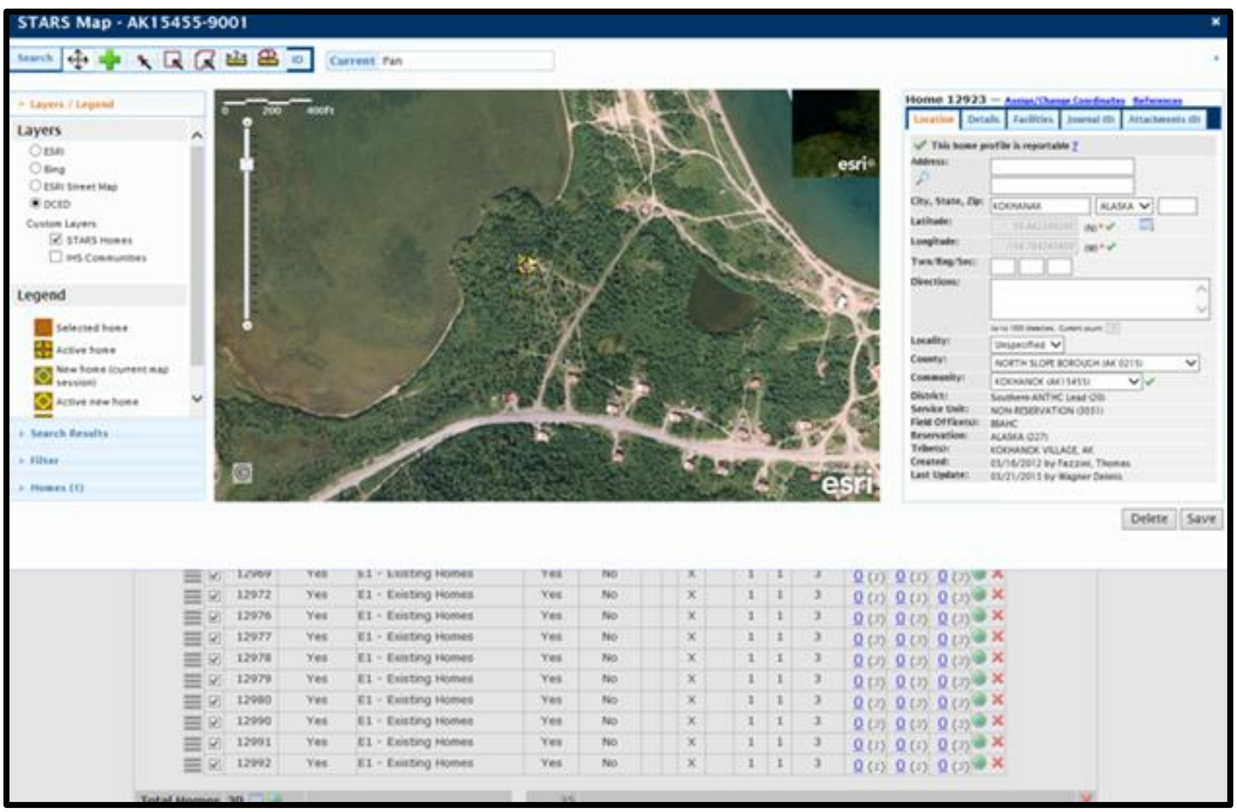
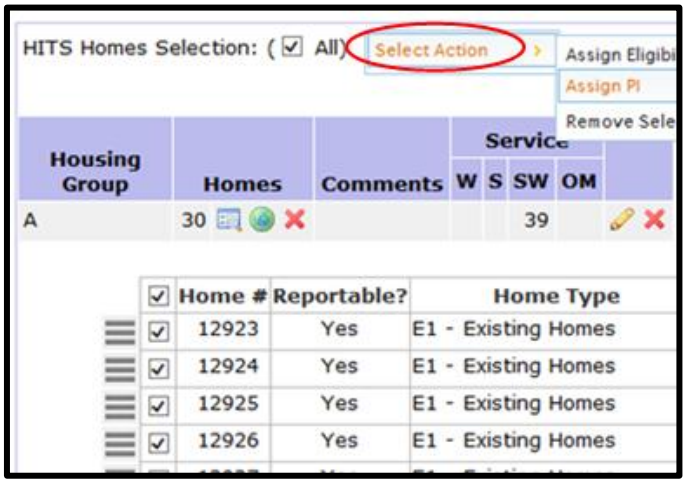


Figure 30: Viewing Information for a Specific Home

16. To edit the deficiency levels for the new homes, click the 'Select All' box indicated below.

Figure 31: Editing Information Regarding Deficiency Levels

17. Use the 'Select Action' box to assign a deficiency level for the homes for each category.



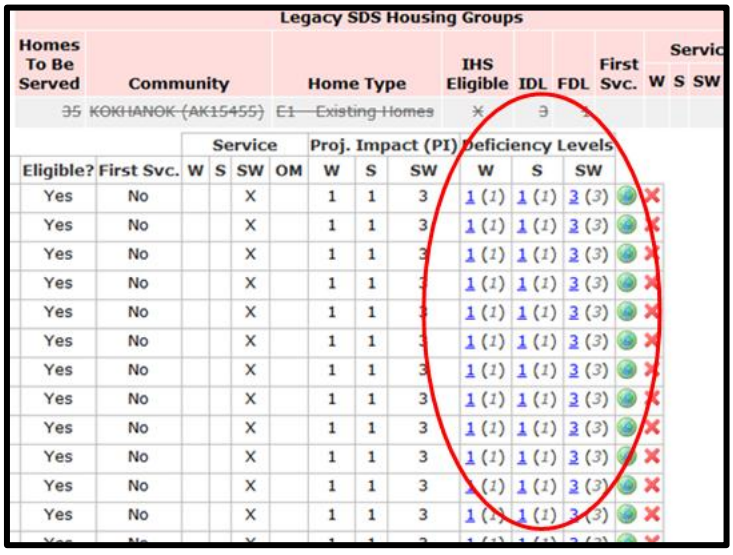


Figure 32: Assigning Deficiency Levels

18. Repeat this process for each housing group.

How to Connect Costs to the Correct Housing Groups

The following instructions outline the basic steps to connect line item costs with the newly created HITS housing groups in existing SDS projects. To do so, log into wSTARS, locate the SDS project to edit, and assign homes to the correct HITS Housing Group(s).

1. Go to the 'Costs' tab for the SDS project.

Figure 33: The Cost Tab

2. Select the first line item cost by clicking on 'Edit'. The 'Line Item Detail' box will open.

Figure 34: Editing Cost Tab

3. The line item cost data that was originally associated with the homes should still be present. Verify that all data is accurate and edit any values that need to be updated based upon the new number of HITS Homes associated with the line item cost.

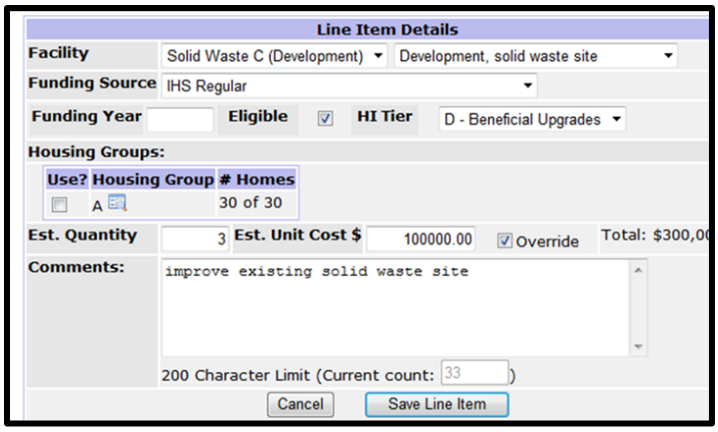


Figure 35: Line Item Details Screen

4. Select the housing group that is associated with the line item cost by checking the 'Use?' box. While this example only has one housing group, other projects may have multiple housing groups and not all of which may be associated with the line item cost.

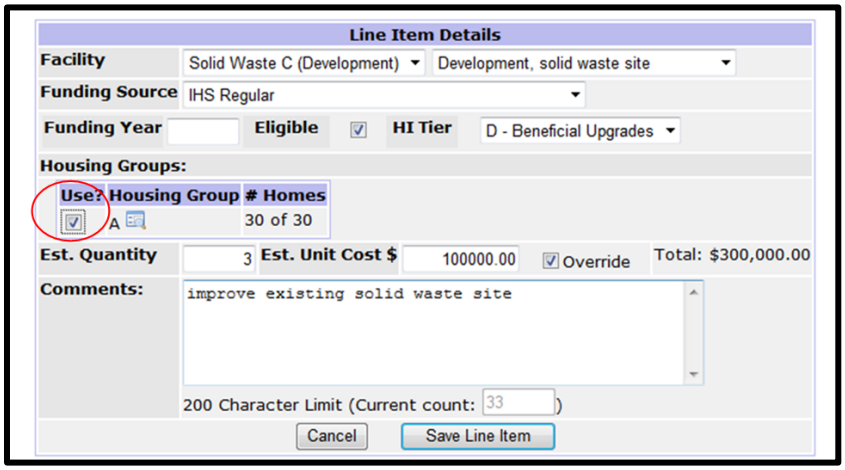


Figure 36: Selecting Housing Group

5. Once the Line Item Cost data is accurate and the correct Housing Group(s) are selected, click on 'Save Line Item' and repeat the process for each remaining Line Item Cost.
6. Return to Project Details tab to confirm the final deficiency level is '0.'

Submitting Projects

Project planners should work closely with local community members while developing and submitting projects. Once project planners have updated all project phases and modified the Community Deficiency Profile (CDP) to match the current housing situation, they must submit the proposed SDS phases to their supervisors for review. Supervisors should scrutinize all projects for accuracy and closely review any projects expected to be within the fundable range. Two weeks will also be provided for the Regional Health Organizations (RHOs) to review projects within their respective areas. Project reviews must be completed and all supervisor and RHO changes incorporated for a final submittal to the review committee. Please see *Funding Allocation for Sanitation Facilities Schedule for 2014* in the *Funding Information* section of this manual for specific dates.

Using Reports

Reports are available for data review and can be exported to Microsoft Excel, to Microsoft Word, or in HTML format. To access SDS reports, click the 'Reports' tab. The reports available in the SDS are the same reports that were available through STARS. Reports are only available to the level of access that has been established for the user. Figure 37 depicts the reports available in the SDS.

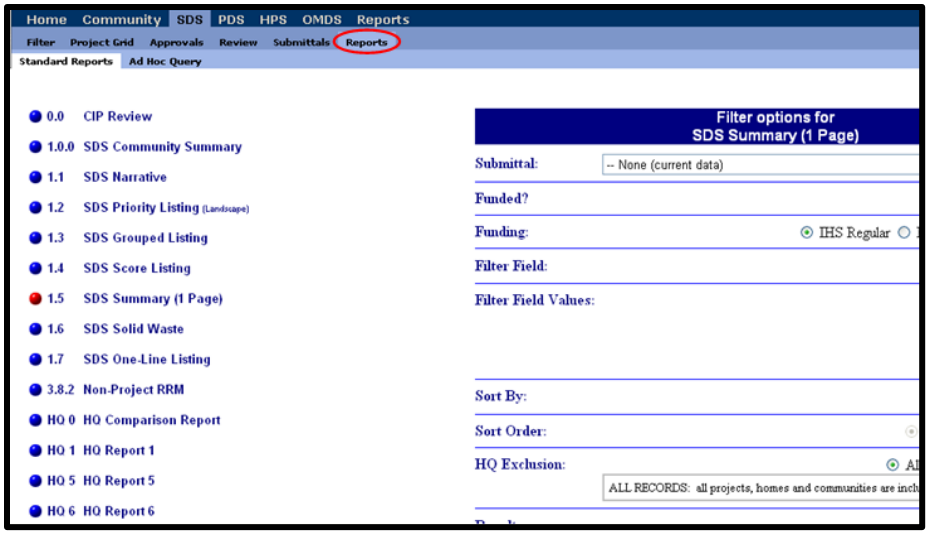


Figure 37: The Standard Reports Option in SDS.
To run a report, select any of the report titles.

Using Queries

The query function in the SDS allows users to create queries based on the criteria contained in either the Project Details tab or the 'Community Deficiency Profile' (CDP) page that the user identifies. To access the queries, click on the 'Ad Hoc Query' tab and select to query either the 'Community Summaries' information or the 'Project Narratives' information.

Selecting the 'Community Summaries' information allows the user to run a query based on project information or line items. Selecting the 'Project Narratives' information allows the user to run a query based on project information, community information, deficiency levels, scores or costs.

The query information displayed in Figure 38 was accessed by first selecting the 'Project Narratives' information and selecting the 'Score' tab. This query is filtering for projects with a contribution score between 1 and 8 with a total score between 70 and 90. If all query fields are clear, then all data will be considered for the query. Query results can be displayed in Word, Excel, or HTML formats by selecting the desired option from the 'Return Results' as drop-down box. To run the query, click the 'View Results' button.

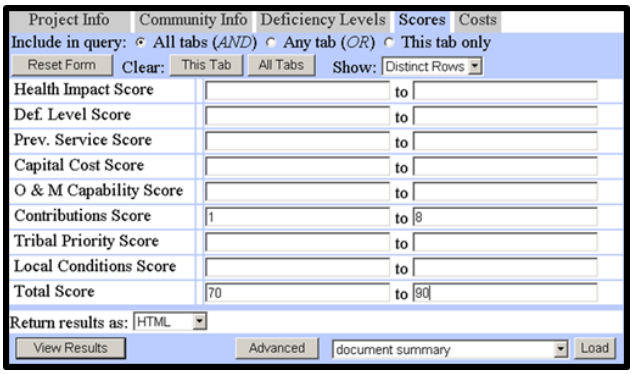


Figure 38: A Custom Query of Project Narrative Information Using Score Data in the SDS
Select among all of the criteria listed to produce reports. Click the 'Advanced' button for additional display and sorting options.

Clicking the 'Advanced' button on the query screen allows the user to identify and sort the data that will be displayed in the query. The user can include data in the 'Display Columns' box from the 'Available Columns' box by selecting the 'Show >', 'All >>', '< Hide', and '<< All' buttons. The user can sort the data by selecting the sort criteria from the 'Display Columns' box into the Sort Columns box. The data can be reorganized in the 'Sort Column' box by selecting data and clicking the 'Top', 'Up', 'Down', and 'Bottom' buttons.

Figure 39 shows an advanced query that will display the 'Community Name', 'Project Name', 'Contributions Score', 'Total Score', and 'Total Cost'. The results are sorted based on 'Total Score'. To run the query, select the 'View Results' button.

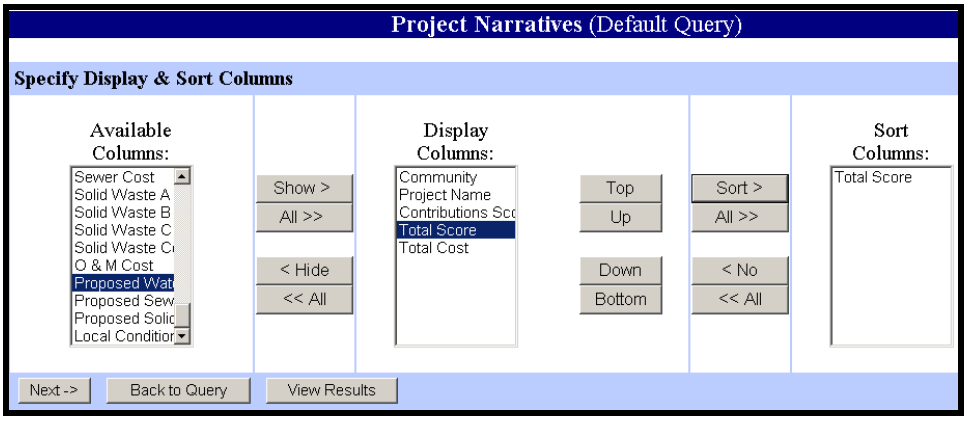


Figure 39: The Advanced Query Screen in the SDS
Use the advanced query function to select the display columns and how the data will be sorted.

The results for the query shown in Figures 38 and 39 are displayed in Figure 40.

Community	Project Name	Contributions Score	Total Score	Total Cost
KWIGILLINGOK	KWIGILLINGOK - Raw Water Line	8	70	675500
WALES	WALES - Raw Water Transmission Line	6	72	384700
HUGHES	HUGHES - Water Source, Haul Sys, Washete	8	75	303000

Figure 40: Results from the Advanced Query Shown in Figures 38 & 39
Query results can be displayed in Word, Excel, or HTML format by selecting the desired option from the Return Results as drop-down box on the 'Query screen.

Queries can be saved for future use by naming the query and selecting the Save button on the top of the 'Query Results' screen as shown in Figure 41. If the 'Private' box is selected, the saved query will be available only to the user who created the query. If the 'Private' box is not selected, the query will be available to all SDS query users.

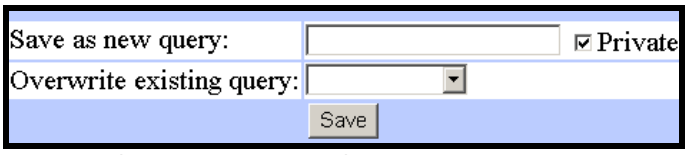


Figure 41: The Query Save Box in the SDS
Query results can be saved as private information that can be accessed only by the user who created the query by selecting the 'Private' box.

Saved queries can be loaded from the pull-down menu at the bottom of the initial query screen as shown in Figure 41. The available query shown in Figure 41 is called 'Document Summary'.

Appendix A

The Total Allowable Unit Costs for Each Community in Alaska as Used to Determine the Capital Cost Score in the SDS

Note that the district designates the IHS-defined districts, which can be different than the DEHE region names.

Threshold Costs

The total allowable unit costs (caps) for the Sanitation Deficiency System (SDS) have recently been updated and the new limits are shown below. The SDS caps are used to determine economic feasibility of proposed projects.

The SDS caps were set in 1993, updated in 1999, and now again updated in 2006. The 1999 update used the same fundamental methodology that was used to set the original caps. Through consultation, the method for updating the SDS caps was refined, agreed upon, and established with the recommendation that they be updated in the future. The SDS caps were discussed at a meeting of the Regular Funds Allocation Workgroup on March 18, 1999. Representatives of 10 IHS Areas attended this meeting, including Anchorage. After much discussion, an agreement was reached on a methodology. The equivalent methodology was used to establish the 2006 updated SDS caps with consideration given to comments solicited from all areas.

The IHS Health Facilities program uses the IHS Facilities Cost Index to estimate costs of constructing health facilities at various IHS locations. A consultant developed and routinely updated the IHS index using construction-estimating methods. These updated SDS caps use the indices from 2003 through 2005 for each state.

The Department of Housing and Urban Development (HUD) developed a cost database for Indian Housing under the Native American Housing Assistance and Self Determination Act of 1996 (NAHASDA). The cost data is called the Housing Construction Costs (HCC) and is shown by state. The HCC housing unit hard costs include builders overhead, profit, utilities from the street, finished landscaping, and Davis Bacon Wages.

HCC was applied with the IHS Facilities Cost Index to calculate indexes by state. The data was normalized to North Dakota for these calculations (i.e. North Dakota was given an index of 1). The updated unit cost based on 50% of the HCC using a similar procedure that yielded the 1999 caps (since the HCC does not include complete development costs, a determination as made in the 1999 calculations to calculate the unit cost based on 50% of the HCC [DCE in 199] averages). The SDS caps were calculated, using HCC, for all states and the caps went up in every state except Alaska. The average increase excluding Alaska was approximately 20%. The 1999 Regular Funds Allocation Workgroup agreed to raise each state a minimum of the average increase (excluding Alaska) over the existing caps.

This methodology was used to calculate the Unit Cost Caps in the table. The overall average increase was 22%, which amounts to a 2.4% annual increase compounded over the last six years.

The caps will be adjusted on a regular basis, with a periodical review of the cost indexes to determine the impacts of inflation on the construction industry.

State	Threshold Unit Cost
Alabama	$ 73,500
Alaska (A)	$ 129,500
Alaska (B)	$ 150,500
Alaska (C)	$ 168,000
Arizona	$ 84,500
California	$ 101,000
Colorado	$ 81,500
Connecticut	$ 99,000
Florida	$ 79,000
Idaho	$ 83,500
Iowa	$ 84,500
Kansas	$ 80,000
Louisiana	$ 71,500
Maine	$ 85,500
Massachusetts	$ 119,000
Michigan	$ 85,500
Minnesota	$ 96,500
Mississippi	$ 73,000
Montana	$ 81,500
Nebraska	$ 81,500
Nevada	$ 93,500
New Mexico	$ 80,000
New York	$ 95,000
North Carolina	$ 75,000
North Dakota	$ 82,500
Oklahoma	$ 73,000
Oregon	$ 91,500
Rhode Island	$ 98,000
South Carolina	$ 73,000
South Dakota	$ 79,000
Texas	$ 72,000
Utah	$ 81,000
Washington	$ 96,500
Wisconsin	$ 90,500
Wyoming	$ 78,500

Table 12: 2015 SDS Total Allowable (Threshold) Unit Costs by State

Community		Threshold	
Name	Code	Group	Unit Cost
Adak	AK14389	C	$168,000.00
Afognak	AK13322	A	$129,500.00
Akers Camp	AK16481	B	$150,500.00
Akhiok	AK13323	B	$150,500.00
Akiachak	AK16482	B	$150,500.00
Akiak	AK16483	B	$150,500.00
Akokpak	AK15421	C	$168,000.00
Akulurak	AK16484	B	$150,500.00
Akutan	AK14361	B	$150,500.00
Alakanuk	AK24841	B	$150,500.00
Alaktak	AK21729	C	$168,000.00
Alaska Unk	AK99999	B	$150,500.00
Alatna	AK18624	C	$168,000.00
Alcatraz	AK11266	A	$129,500.00
Aleknagik	AK15422	B	$150,500.00
Allakaket	AK18601	C	$168,000.00
Ambler	AK22741	C	$168,000.00
Amchita	AK14368	B	$150,500.00
Anadel	AK13333	A	$129,500.00
Anaktuvuk	AK21721	C	$168,000.00
Anchor Point	AK12281	A	$129,500.00
Anchorage	AK10221	B	$150,500.00
Anderson	AK18632	B	$150,500.00
Andreafsky	AK24862	B	$150,500.00
Angoon	AK04061	A	$129,500.00
Aniak	AK17541	B	$150,500.00
Annette Isle	AK02021	A	$129,500.00
Anvik	AK17542	B	$150,500.00
Arctic Vill	AK20701	C	$168,000.00
Artesian Vil	AK10231	A	$129,500.00
Atka	AK14362	C	$168,000.00
Atqasuk	AK21734	C	$168,000.00
Atmautluak	AK16511	B	$150,500.00
Attu	AK14363	C	$168,000.00
Auke Bay	AK05081	A	$129,500.00
Aurora Lodge	AK19681	B	$150,500.00
Baranof	AK03047	A	$129,500.00
Bare Island	AK13346	A	$129,500.00
Barrow	AK21722	C	$168,000.00
Barter Isle	AK20702	B	$150,500.00
Bartlett	AK19682	B	$150,500.00
Beachy Point	AK21723	C	$168,000.00
Beaver	AK20703	B	$150,500.00
Belkofski	AK14364	C	$168,000.00
Bell Isl H S	AK02034	A	$129,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Beluga	AK10244	A	$129,500.00
Bernice Lake	AK12284	A	$129,500.00
Berry	AK19683	B	$150,500.00
Bessie Dr.5	AK23782	B	$150,500.00
Bethel	AK16485	B	$150,500.00
Bettles	AK18602	C	$168,000.00
Big Delta	AK19661	B	$150,500.00
Big Hurrah	AK23783	B	$150,500.00
Big Lake	AK09181	A	$129,500.00
Big Port Wal	AK03048	A	$129,500.00
Bill Moores	AK24842	B	$150,500.00
Biorka Islan	AK04066	A	$129,500.00
Birch Creek	AK19662	B	$150,500.00
Birch Lake	AK19684	B	$150,500.00
Birchwood	AK10222	A	$129,500.00
Bird	AK10232	A	$129,500.00
Bornite	AK22745	B	$150,500.00
Bradfield Ca	AK02911	A	$129,500.00
Branch River	AK15423	C	$168,000.00
Brevig	AK23781	B	$150,500.00
Broad Pass	AK09191	A	$129,500.00
Buckland	AK22742	B	$150,500.00
Bunk Hill Cr	AK23787	B	$150,500.00
Burn In - Et I	AK03057	A	$129,500.00
Cache	AK18614	B	$150,500.00
Candle	AK22743	B	$150,500.00
Cantwell	AK18603	B	$150,500.00
Canyon Vill	AK19663	B	$150,500.00
Cape Halkett	AK21730	C	$168,000.00
Cape Lisburn	AK22760	B	$150,500.00
Cape Pole	AK01007	A	$129,500.00
Cape Woolley	AK23806	B	$150,500.00
Central	AK20713	B	$150,500.00
Ch Kl Nawik	AK24845	B	$150,500.00
Chalitna - Chu	AK09194	A	$129,500.00
Chalkyitsik	AK20704	C	$168,000.00
Chandalar	AK18604	B	$150,500.00
Chase (Rr S)	AK09195	A	$129,500.00
Chatanika	AK19675	B	$150,500.00
Chatem - Chath	AK04067	A	$129,500.00
Cheching	AK16487	B	$150,500.00
Chefornak	AK16486	B	$150,500.00
Chena Hot Sp	AK19685	B	$150,500.00
Chenega	AK08141	B	$150,500.00
Chernofski	AK14062	A	$129,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Chevak	AK24844	B	$150,500.00
Chichagof	AK04068	A	$129,500.00
Chickaloon	AK09182	A	$129,500.00
Chicken	AK19664	B	$150,500.00
Chiftak	AK16512	B	$150,500.00
Chignik	AK14365	B	$150,500.00
Chignik Lake	AK14367	B	$150,500.00
Chignik Lgn	AK14366	B	$150,500.00
Chiniak	AK13334	A	$129,500.00
Chisana	AK19656	B	$150,500.00
Chistochina	AK08142	B	$150,500.00
Chitina	AK08143	B	$150,500.00
Chowhoctolik	AK24863	B	$150,500.00
Christian	AK20715	C	$168,000.00
Chuathbaluk	AK17559	B	$150,500.00
Chufaktoolik	AK16513	B	$150,500.00
Chugiak	AK10223	A	$129,500.00
Chuloonawick	AK24867	B	$150,500.00
Circle	AK20705	B	$150,500.00
Circle H Spr	AK20718	C	$168,000.00
Clam Gulch	AK12282	A	$129,500.00
Clarks Point	AK15424	B	$150,500.00
Clear	AK18605	B	$150,500.00
Clover Pass	AK02027	A	$129,500.00
Cobol	AK04069	A	$129,500.00
Coffman Cove	AK01011	A	$129,500.00
Cohoe	AK12283	A	$129,500.00
Cold Bay	AK14390	C	$168,000.00
Coleville	AK21724	C	$168,000.00
College	AK19665	B	$150,500.00
Cooper Lndng	AK11261	A	$129,500.00
Copper Centr	AK08144	B	$150,500.00
Copper Vally	AK08145	B	$150,500.00
Corner Bay	AK05092	A	$129,500.00
Cottonwood	AK22757	B	$150,500.00
Council	AK23808	B	$150,500.00
Crab Bay	AK01923	A	$129,500.00
Craig	AK01001	A	$129,500.00
Crooked Crk	AK17543	B	$150,500.00
Crow Village	AK17564	B	$150,500.00
Curry	AK09196	A	$129,500.00
Cutoff	AK18633	B	$150,500.00
Danger Bay	AK13335	A	$129,500.00
Deering	AK22744	B	$150,500.00
Delta Jct.	AK19680	B	$150,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Derby Tract	AK19686	B	$150,500.00
Dillingham	AK15425	B	$150,500.00
Dome	AK19687	B	$150,500.00
Dot Lake	AK19666	B	$150,500.00
Douglas	AK05082	A	$129,500.00
Dunbar	AK18634	B	$150,500.00
Dupont	AK05093	A	$129,500.00
Dutch Harbor	AK14385	C	$168,000.00
Eagle	AK20706	B	$150,500.00
Eagle River	AK10224	A	$129,500.00
East Chester	AK10233	A	$129,500.00
Edna Bay	AK01010	A	$129,500.00
Eek	AK16488	B	$150,500.00
Egegik	AK15426	B	$150,500.00
Eielson Afb	AK19688	B	$150,500.00
Eight Mile	AK17544	B	$150,500.00
Eklutna	AK10225	B	$150,500.00
Ekuk	AK15427	B	$150,500.00
Ekwok	AK15428	B	$150,500.00
El Capitan	AK02913	A	$129,500.00
Elephant Pt	AK22758	B	$150,500.00
Elfin Cove	AK06108	A	$129,500.00
Elim	AK23784	B	$150,500.00
Elmendorf Af	AK10234	A	$129,500.00
Emmonak	AK24846	B	$150,500.00
English Bay	AK12285	B	$150,500.00
Eska	AK09197	A	$129,500.00
Eskimo	AK19689	B	$150,500.00
Ester	AK19676	B	$150,500.00
Eureka Lodge	AK08146	B	$150,500.00
Excursion In	AK06110	A	$129,500.00
Eyak	AK07121	B	$150,500.00
Fairbanks	AK19667	B	$150,500.00
False Island	AK04080	A	$129,500.00
False Pass	AK14369	B	$150,500.00
Farewell	AK17557	B	$150,500.00
Federal	AK10235	A	$129,500.00
Ferry	AK18625	B	$150,500.00
Fire Island	AK10236	A	$129,500.00
Flat	AK17545	B	$150,500.00
Flat Creek	AK02915	A	$129,500.00
Flaxman Is.	AK20710	B	$150,500.00
Fort Yukon	AK20707	C	$168,000.00
Fortuna Ledg	AK24847	B	$150,500.00
Fox	AK19677	B	$150,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Freshwater B	AK04075	A	$129,500.00
Ft. Greely	AK19690	B	$150,500.00
Ft.Richardsn	AK10237	A	$129,500.00
Ft.Wainwrght	AK19691	B	$150,500.00
Funter Bay	AK06111	A	$129,500.00
Gakona	AK08147	B	$150,500.00
Galena	AK18606	B	$150,500.00
Galla Log Cp	AK03054	A	$129,500.00
Gambell	AK23785	B	$150,500.00
Garden Islnd	AK19692	B	$150,500.00
Gedney Pass	AK02916	A	$129,500.00
George Inlet	AK02035	A	$129,500.00
Georgetown	AK17546	B	$150,500.00
Girdwood	AK10226	A	$129,500.00
Glenallen	AK08148	B	$150,500.00
Glenn Hgy Ea	AK08159	A	$129,500.00
Glenn Hgy We	AK09198	A	$129,500.00
Goddard	AK04070	A	$129,500.00
Gold Creek	AK09199	A	$129,500.00
Golovin	AK23786	B	$150,500.00
Goodnews Bay	AK16489	B	$150,500.00
Goosebay	AK10227	A	$129,500.00
Graehl	AK19693	B	$150,500.00
Grayling	AK17547	B	$150,500.00
Gruen	AK13336	A	$129,500.00
Guard Island	AK02036	A	$129,500.00
Gulkana	AK08149	B	$150,500.00
Gustavus	AK06084	A	$129,500.00
Haines	AK06101	A	$129,500.00
Halibut Cove	AK12286	A	$129,500.00
Hamilton	AK24848	B	$150,500.00
Hanus Bay	AK04076	A	$129,500.00
Harding	AK19694	B	$150,500.00
Hassler Pass	AK02917	A	$129,500.00
Hawk Inlet	AK06102	A	$129,500.00
Hawkan	AK01006	A	$129,500.00
Healy Lake	AK18607	B	$150,500.00
Hidden Inlet	AK02022	A	$129,500.00
Hogatza	AK18626	B	$150,500.00
Holikachuk	AK17548	B	$150,500.00
Holitna Rvr	AK17569	B	$150,500.00
Hollis	AK01012	A	$129,500.00
Holy Cross	AK17549	B	$150,500.00
Homer	AK12287	A	$129,500.00
Hood Bay	AK03041	A	$129,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Hoonah	AK06103	A	$129,500.00
Hooper Bay	AK24849	B	$150,500.00
Hope	AK11262	A	$129,500.00
Houston	AK09200	A	$129,500.00
Hughes	AK18608	B	$150,500.00
Hurricane	AK09201	A	$129,500.00
Huslia	AK18609	B	$150,500.00
Hydaburg	AK01002	A	$129,500.00
Hyder	AK02037	A	$129,500.00
Iditarod	AK17570	B	$150,500.00
Igiugig	AK15429	B	$150,500.00
Igushik	AK15454	B	$150,500.00
Ikatan	AK14370	B	$150,500.00
Iliamna	AK15430	B	$150,500.00
Iliuliuk	AK14388	C	$168,000.00
Indian	AK10230	A	$129,500.00
Indian River	AK18610	B	$150,500.00
Isco Log Cmp	AK02060	A	$129,500.00
Ivanhof Bay	AK14371	B	$150,500.00
Johnson Rvr	AK19695	B	$150,500.00
Jonesville	AK09202	A	$129,500.00
Juneau	AK05083	A	$129,500.00
Juneau Val	AK05085	A	$129,500.00
Kachemak Bay	AK12299	A	$129,500.00
Kachemak Selo	AK09280	A	$129,500.00
Kachemak Sil	AK12280	A	$129,500.00
Kaguyak	AK13324	A	$129,500.00
Kake	AK03042	A	$129,500.00
Kaktovik	AK20714	C	$168,000.00
Kalifonsky - N	AK12300	A	$129,500.00
Kallands	AK18627	B	$150,500.00
Kalskag	AK17550	B	$150,500.00
Kaltag	AK18611	B	$150,500.00
Kanakanak	AK15431	B	$150,500.00
Kanatak	AK13337	A	$129,500.00
Karluk	AK13325	B	$150,500.00
Kasaan	AK01008	A	$129,500.00
Kasheets Bay	AK03058	A	$129,500.00
Kashwitna	AK09203	A	$129,500.00
Kasigluk	AK16490	B	$150,500.00
Kasilof	AK12288	A	$129,500.00
Kenai	AK12289	B	$150,500.00
Kenny Lake	AK08160	A	$129,500.00
Ketchikan	AK02023	A	$129,500.00
Ketchikan Sb	AK02038	A	$129,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Keyaluvik	AK16491	B	$150,500.00
Kiana	AK22746	C	$168,000.00
Kinak	AK16492	B	$150,500.00
King Salmon	AK15432	B	$150,500.00
Kingcove	AK14372	B	$150,500.00
Kingeggan	AK23789	B	$150,500.00
Kipnuk	AK16493	B	$150,500.00
Kitoi Bay	AK13338	A	$129,500.00
Kivalina	AK22747	C	$168,000.00
Kiwalik	AK22761	B	$150,500.00
Klawock	AK01003	A	$129,500.00
Klucheva - Klu	AK12301	A	$129,500.00
Klukwan	AK06104	A	$129,500.00
Knik	AK10228	A	$129,500.00
Knudson Cove	AK02039	A	$129,500.00
Kobuk	AK22748	C	$168,000.00
Kodiak	AK13326	B	$150,500.00
Kodiak Nav S	AK13339	A	$129,500.00
Koggiung	AK15458	B	$150,500.00
Kokhanok	AK15455	B	$150,500.00
Kokrines	AK18628	B	$150,500.00
Koliganek	AK15433	B	$150,500.00
Kongiganak	AK16494	B	$150,500.00
Kotlik	AK24850	B	$150,500.00
Kotzebue	AK22749	C	$168,000.00
Kougarok	AK23799	B	$150,500.00
Koyuk	AK23790	B	$150,500.00
Koyukak R Tp	AK18635	B	$150,500.00
Koyukuk	AK18612	B	$150,500.00
Kulukak	AK15435	B	$150,500.00
Kvichak	AK15436	B	$150,500.00
Kwethluk	AK16495	B	$150,500.00
Kwigillingok	AK16496	B	$150,500.00
Kwiguk	AK24851	B	$150,500.00
Labrouch Bay	AK02918	A	$129,500.00
Lake Clark	AK15464	B	$150,500.00
Lake Minchumi.	AK18998	B	$150,500.00
Larsen Bay	AK13327	B	$150,500.00
Lazy Bay	AK13340	A	$129,500.00
Lemeta	AK19696	B	$150,500.00
Lena Beach	AK05088	A	$129,500.00
Levelock	AK15437	B	$150,500.00
Libbyville	AK15459	B	$150,500.00
Lime Village	AK17551	B	$150,500.00
Litl.Diomede	AK23791	C	$168,000.00

Community		Threshold	
Name	Code	Group	Unit Cost
Little Nau B	AK02919	A	$129,500.00
Little Por W	AK03049	A	$129,500.00
Livengood	AK19678	B	$150,500.00
Lk Minchum – M	AK18645	B	$150,500.00
Loring	AK02040	A	$129,500.00
Lost River	AK23809	B	$150,500.00
Low.Kalskag	AK17552	B	$150,500.00
Maclaren Rvr	AK09204	A	$129,500.00
Mahoneyville	AK09205	A	$129,500.00
Manley Sprgs	AK18613	B	$150,500.00
Manokotak	AK15438	B	$150,500.00
Mansfld Vil	AK19679	B	$150,500.00
Marshall	AK24861	B	$150,500.00
Marvel Creek	AK16514	B	$150,500.00
Mary’s Igloo	AK23805	B	$150,500.00
Matanuska	AK09206	A	$129,500.00
May Creek	AK22759	B	$150,500.00
Mccarthy	AK07123	A	$129,500.00
Mcgrath	AK17553	B	$150,500.00
Mckinley Prk	AK18636	B	$150,500.00
Mcmannus Pnt	AK10239	A	$129,500.00
Mead River	AK21726	C	$168,000.00
Meakerville	AK07124	A	$129,500.00
Medfra	AK17554	B	$150,500.00
Mekoryuk	AK16498	B	$150,500.00
Mendeltna	AK08150	B	$150,500.00
Mentasta	AK08158	B	$150,500.00
Metlakatla	AK02024	A	$129,500.00
Meyers Chk	AK01009	A	$129,500.00
Miller House	AK20716	C	$168,000.00
Minto	AK18615	B	$150,500.00
Montana	AK09183	A	$129,500.00
Moose Pass	AK11263	A	$129,500.00
Moser Bay	AK13328	A	$129,500.00
Moses Point	AK23792	B	$150,500.00
Mountain Pt	AK02029	A	$129,500.00
Mountain Vew	AK10240	A	$129,500.00
Mountain Vil	AK24852	B	$150,500.00
Mt. Alyeska	AK10245	A	$129,500.00
Mt.Edgecumbe	AK04063	A	$129,500.00
Mt.Mckinley	AK18616	B	$150,500.00
Mud Bay	AK02028	A	$129,500.00
Mumtrak	AK16515	B	$150,500.00
Murphy Dome	AK18637	B	$150,500.00
Nabesna	AK19668	B	$150,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Nakeen	AK15460	B	$150,500.00
Naknek	AK15439	B	$150,500.00
Nakwasina Cv	AK04071	A	$129,500.00
Nanaka - Nanuk	AK10241	A	$129,500.00
Nanavarnarlk	AK16516	B	$150,500.00
Nanawalek	AK09285	B	$150,500.00
Napaimute	AK17555	B	$150,500.00
Napakiak	AK16499	B	$150,500.00
Napaskiak	AK16500	B	$150,500.00
Nash Harbor	AK16517	B	$150,500.00
Naukati West	AK02998	A	$129,500.00
Neets Bay	AK02020	A	$129,500.00
Nelson Lagoon	AK14374	B	$150,500.00
Nenana	AK18617	B	$150,500.00
New Hamilton	AK24864	B	$150,500.00
New Knock Ho	AK24865	B	$150,500.00
New Stuyahok	AK15441	B	$150,500.00
Newhalen	AK15440	B	$150,500.00
Newtok	AK16501	B	$150,500.00
Nichen Cove	AK01924	A	$129,500.00
Nightmute	AK16502	B	$150,500.00
Nikishka	AK12302	A	$129,500.00
Nikolaevak	AK12303	A	$129,500.00
Nikolai	AK17556	B	$150,500.00
Nikolski	AK14375	B	$150,500.00
Nilikluguk	AK16518	B	$150,500.00
Ninety-Fr Mi	AK09207	A	$129,500.00
Ninilchik	AK12290	B	$150,500.00
No.Shoal Cov	AK02920	A	$129,500.00
Noatak	AK22750	C	$168,000.00
Nome	AK23793	B	$150,500.00
Nondalton	AK15442	B	$150,500.00
Noorvik	AK22751	C	$168,000.00
North Kenai	AK12305	A	$129,500.00
North Pole	AK19669	B	$150,500.00
Northeast Cp	AK23794	B	$150,500.00
Northway	AK19670	B	$150,500.00
Nuiqsut	AK21733	C	$168,000.00
Nulato	AK18618	B	$150,500.00
Nunachak	AK16519	B	$150,500.00
Nunam Iqua	AK21859	C	$168,000.00
Nunapitchuk	AK16503	B	$150,500.00
Nunivak Isld	AK16520	B	$150,500.00
Nushagak	AK15443	B	$150,500.00
Nuyakak Rivr	AK15420	C	$168,000.00

Community		Threshold	
Name	Code	Group	Unit Cost
Nyac	AK16504	B	$150,500.00
O'brien Crk.	AK20717	C	$168,000.00
Ohogamiute	AK24853	B	$150,500.00
Old Harbor	AK13329	B	$150,500.00
Ole Creek	AK04077	A	$129,500.00
Olsonville	AK15456	B	$150,500.00
Ophir	AK17566	B	$150,500.00
Oscarville	AK16505	B	$150,500.00
Ouzinkie	AK13330	B	$150,500.00
Paimiut	AK17565	B	$150,500.00
Palmer	AK09184	A	$129,500.00
Pastolik	AK24866	B	$150,500.00
Pauloff Harb	AK14376	C	$168,000.00
Paxson	AK19185	B	$150,500.00
Pedro Bay	AK15444	B	$150,500.00
Pedro Dome	AK19698	B	$150,500.00
Pelican	AK06105	A	$129,500.00
Peninsula Pt	AK02030	A	$129,500.00
Pennock Is.	AK02031	A	$129,500.00
Perryville	AK14377	B	$150,500.00
Petersburg	AK03043	A	$129,500.00
Pikes Landin	AK19671	B	$150,500.00
Pile Bay	AK15445	B	$150,500.00
Pilot Point	AK15446	B	$150,500.00
Pilot Statn	AK24854	B	$150,500.00
Pinak	AK14378	B	$150,500.00
Pitkas Point	AK24855	B	$150,500.00
Platinum	AK16506	B	$150,500.00
Point Baker	AK01013	A	$129,500.00
Point Barrow	AK21725	C	$168,000.00
Point Hope	AK22752	C	$168,000.00
Point Lay	AK21727	C	$168,000.00
Port Alice	AK01014	A	$129,500.00
Port Armstrg	AK03050	A	$129,500.00
Port Ashton	AK08161	A	$129,500.00
Port Bailey	AK13347	A	$129,500.00
Port Cnclusn	AK03051	A	$129,500.00
Port Graham	AK12291	B	$150,500.00
Port Heiden	AK15448	B	$150,500.00
Port Lions	AK13331	B	$150,500.00
Port Moller	AK15449	B	$150,500.00
Port Oceanic	AK07122	A	$129,500.00
Portage	AK10229	A	$129,500.00
Portage Crk	AK15447	B	$150,500.00
Portlock	AK12306	A	$129,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Princess Bay	AK02019	A	$129,500.00
Prt Chilkoot	AK06109	A	$129,500.00
Prt Higgins	AK02032	A	$129,500.00
Prt Nel Juan	AK08162	A	$129,500.00
Prt Protect.	AK01015	A	$129,500.00
Prt Wakefld	AK13341	A	$129,500.00
Prt.Alexandr	AK03044	A	$129,500.00
Prt.Alsworth	AK15457	B	$150,500.00
Prudhoe Bay	AK21736	C	$168,000.00
Pt.Whitshed	AK07125	A	$129,500.00
Punuk Island	AK23807	B	$150,500.00
Quartz Creek	AK11267	A	$129,500.00
Quinhagak	AK16497	B	$150,500.00
Rampart	AK18619	B	$150,500.00
Ratz Harbor	AK01016	A	$129,500.00
Red Bay	AK01902	A	$129,500.00
Red Devil	AK17558	B	$150,500.00
Reva Log Cmp	AK02914	A	$129,500.00
Richardson	AK19699	B	$150,500.00
Richrdsn Hgy	AK08163	A	$129,500.00
Ridgeway	AK12296	A	$129,500.00
Rky Ps - Zar I	AK03056	A	$129,500.00
Rodman	AK04072	A	$129,500.00
Rowan Bay	AK04078	A	$129,500.00
Ruby	AK18620	B	$150,500.00
Russian Mis	AK24856	B	$150,500.00
Salamatof	AK12297	A	$129,500.00
Salcha	AK19700	B	$150,500.00
Salchaket	AK19660	B	$150,500.00
Sam Creek	AK20711	B	$150,500.00
Sanak	AK14381	C	$168,000.00
Sand Point	AK14382	B	$150,500.00
Saook Bay	AK04073	A	$129,500.00
Saulich	AK18638	B	$150,500.00
Savonoski	AK15461	B	$150,500.00
Savoonga	AK23796	C	$168,000.00
Saxman	AK02025	A	$129,500.00
Scammon Bay	AK24858	B	$150,500.00
Scotty Creek	AK19659	B	$150,500.00
Scow Bay	AK03033	A	$129,500.00
Selawik	AK22753	C	$168,000.00
Seldovia	AK12292	B	$150,500.00
Seward	AK11264	A	$129,500.00
Shageluk	AK17560	B	$150,500.00
Shaktoolik	AK23797	B	$150,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Shearwtr Bay	AK13342	A	$129,500.00
Sheldon Pt	AK24859	C	$168,000.00
Shemya	AK14373	C	$168,000.00
Sheshalik	AK22755	B	$150,500.00
Shipley Bay	AK01925	A	$129,500.00
Shishmaref	AK23798	B	$150,500.00
Shungnak	AK22754	C	$168,000.00
Silvertip	AK11265	A	$129,500.00
Sitka	AK04064	A	$129,500.00
Skagway	AK06106	A	$129,500.00
Skwentna	AK09208	A	$129,500.00
Slana	AK08151	A	$129,500.00
Slaterville	AK19658	B	$150,500.00
Sleetmute	AK17561	B	$150,500.00
Snag Point	AK15462	B	$150,500.00
Snettisham	AK05086	A	$129,500.00
Snug Harbor	AK11268	A	$129,500.00
Soldotna	AK12293	A	$129,500.00
Solomon	AK23811	B	$150,500.00
Sou Kelp Bay	AK04079	A	$129,500.00
Sourdough	AK08169	A	$129,500.00
South Naknek	AK15450	B	$150,500.00
Spenard	AK10242	A	$129,500.00
Squaw Harbor	AK14383	C	$168,000.00
St.George	AK14379	B	$150,500.00
St.Lawr Isld	AK23810	B	$150,500.00
St.Marys	AK24857	B	$150,500.00
St.Michael	AK23795	B	$150,500.00
St.Paul	AK14380	B	$150,500.00
Standard	AK18639	B	$150,500.00
State Wide	AK00000	B	$150,500.00
Stebbins	AK23800	B	$150,500.00
Sterling	AK12294	A	$129,500.00
Stevens Vill	AK20708	B	$150,500.00
Stony River	AK17562	B	$150,500.00
Stuart Creek	AK08164	A	$129,500.00
Stuyahok	AK17568	B	$150,500.00
Summit	AK09640	A	$129,500.00
Sunrise Vill	AK11269	A	$129,500.00
Sunshine	AK09209	A	$129,500.00
Suntrana	AK18641	B	$150,500.00
Susitna	AK09186	A	$129,500.00
Sutton	AK09187	A	$129,500.00
Takotna	AK17563	B	$150,500.00
Taksak	AK24860	B	$150,500.00

Community		Threshold	
Name	Code	Group	Unit Cost
Taku Harbor	AK05087	A	$129,500.00
Taku Lodge	AK05089	A	$129,500.00
Talkeetna	AK09188	A	$129,500.00
Tanacross	AK19672	B	$150,500.00
Tanana	AK18622	B	$150,500.00
Tangle Lakes	AK19657	B	$150,500.00
Tatalina	AK18642	B	$150,500.00
Tatitlek	AK08152	B	$150,500.00
Tazlina	AK08153	B	$150,500.00
Tee Harbor	AK05090	A	$129,500.00
Telida	AK18621	B	$150,500.00
Teller	AK23801	B	$150,500.00
Tenakee	AK04065	A	$129,500.00
Tetlin	AK19673	B	$150,500.00
Thane	AK05091	A	$129,500.00
Thomas Basin	AK02045	A	$129,500.00
Thompsn Pass	AK08165	A	$129,500.00
Thorne Bay	AK01004	A	$129,500.00
Tiekel	AK08166	A	$129,500.00
Tigvariak	AK20712	B	$150,500.00
Tikikluk	AK21731	C	$168,000.00
Todd	AK04074	A	$129,500.00
Togiak	AK15451	B	$150,500.00
Tok	AK19674	B	$150,500.00
Tokeen	AK01017	A	$129,500.00
Toklat	AK18629	B	$150,500.00
Toksook Bay	AK16508	B	$150,500.00
Tolovana	AK18630	B	$150,500.00
Tonsina	AK08154	A	$129,500.00
Trappers Crk	AK09210	A	$129,500.00
Trimms Camp	AK08167	A	$129,500.00
Tuklung	AK15463	B	$150,500.00
Tulageak	AK21732	C	$168,000.00
Tuluksak	AK16509	B	$150,500.00
Tuntutuliak	AK16510	B	$150,500.00
Tununak	AK03507	B	$150,500.00
Tustumena	AK12307	A	$129,500.00
Tuxekan	AK01005	A	$129,500.00
Twelve M.Arm	AK01018	A	$129,500.00
Twin Hills	AK15452	B	$150,500.00
Tyee	AK03052	A	$129,500.00
Tyler Log Cp	AK03055	A	$129,500.00
Tyonek	AK12295	B	$150,500.00
Ugashik	AK15453	B	$150,500.00
Umiat	AK21735	C	$168,000.00
Umnak	AK14384	C	$168,000.00
Unalakleet	AK23802	B	$150,500.00
Unalaska	AK14392	B	$150,500.00
Unga	AK14386	C	$168,000.00
Unimak	AK14391	C	$168,000.00
Unkumute	AK14387	C	$168,000.00
Usibelli	AK18643	B	$150,500.00
Uyak	AK13343	A	$129,500.00
Valdez	AK08156	A	$129,500.00
Venetie	AK20709	C	$168,000.00
Voznesenka	AK12998	A	$129,500.00
Wacker	AK02910	A	$129,500.00
Wadleigh Bay	AK02921	A	$129,500.00
Wainwright	AK21728	C	$168,000.00
Wales	AK23803	B	$150,500.00
Ward Cove	AK02026	A	$129,500.00
Warm Spg Bay	AK03053	A	$129,500.00
Wasilla	AK09189	A	$129,500.00
Waterfall	AK01900	A	$129,500.00
West Pt Isld	AK13344	A	$129,500.00
Whale Pass	AK01901	A	$129,500.00
White Mtn	AK23804	B	$150,500.00
Whittier	AK08157	A	$129,500.00
Wild Lake	AK18644	B	$150,500.00
Wildwood	AK12298	A	$129,500.00
Willow	AK09190	A	$129,500.00
Wiseman	AK18623	B	$150,500.00
Wood River	AK18631	B	$150,500.00
Woodland Prk	AK10243	A	$129,500.00
Woody Island	AK13345	A	$129,500.00
Wortmanns	AK08168	A	$129,500.00
Wrangell	AK03046	A	$129,500.00
Yaa Adult Cp	AK09211	A	$129,500.00
Yaa Youth Cp	AK09212	A	$129,500.00
Yakataga	AK07126	A	$129,500.00
Yakutat	AK06107	A	$129,500.00
Zacher Bay	AK13332	A	$129,500.00

Table 13: Total Allowable Unit Costs for Each Community in Alaska

Appendix B

Threshold Group A Capital Cost Score Table for DL 2

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$6,475	$12,950	$25,900
Sewer Limits:	$6,475	$12,950	$25,900
S W Limits:	$3,238	$6,475	$12,950
Total Limits:	$16,188	$32,375	$64,750

Group A Threshold
$ 129,500
Threshold for DL2
$ 64,750

Pts	Water	Sewer	Solid Waste	Total
16	Up To $6,475	Up To $6,475	Up To $3,238	Up To $16,188
15	$6,476 - $6,907	$6,476 - $6,907	$3,239 - $3,453	$16,189 - $17,267
14	$6,908 - $7,338	$6,908 - $7,338	$3,454 - $3,669	$17,268 - $18,346
13	$7,339 - $7,770	$7,339 - $7,770	$3,670 - $3,885	$18,347 - $19,425
12	$7,771 - $8,202	$7,771 - $8,202	$3,886 - $4,101	$19,426 - $20,504
11	$8,203 - $8,633	$8,203 - $8,633	$4,102 - $4,317	$20,505 - $21,583
10	$8,634 - $9,065	$8,634 - $9,065	$4,318 - $4,533	$21,584 - $22,663
9	$9,066 - $9,497	$9,066 - $9,497	$4,534 - $4,748	$22,664 - $23,742
8	$9,498 - $9,928	$9,498 - $9,928	$4,749 - $4,964	$23,743 - $24,821
7	$9,929 - $10,360	$9,929 - $10,360	$4,965 - $5,180	$24,822 - $25,900
6	$10,361 - $10,792	$10,361 - $10,792	$5,181 - $5,396	$25,901 - $26,979
5	$10,793 - $11,223	$10,793 - $11,223	$5,397 - $5,612	$26,980 - $28,058
4	$11,224 - $11,655	$11,224 - $11,655	$5,613 - $5,828	$28,059 - $29,138
3	$11,656 - $12,087	$11,656 - $12,087	$5,829 - $6,043	$29,139 - $30,217
2	$12,088 - $12,518	$12,088 - $12,518	$6,044 - $6,259	$30,218 - $31,296
1	$12,519 - $12,950	$12,519 - $12,950	$6,260 - $6,475	$31,297 - $32,375
0	$12,951 - $25,899	$12,951 - $25,899	$6,476 - $12,949	$32,376 - $64,749
-20	$25,900 Or More	$25,900 Or More	$12,950 Or More	$64,750 Or More

Table 14: Threshold Group A Capital Cost Score Table (Use for Initial DL 2)

Appendix C

Threshold Group A Capital Cost Score Table for DL 3

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$11,331	$22,663	$45,325
Sewer Limits:	$11,331	$22,663	$45,325
S W Limits:	$4,856	$9,713	$19,425
Total Limits:	$27,519	$55,038	$110,075

Group A Threshold
$ 129,500
Threshold for DL3
$ 110,075

Pts	Water	Sewer	Solid Waste	Total
16	Up To $11,331	Up To $11,331	Up To $4,856	Up To $27,519
15	$11,332 - $12,087	$11,332 - $12,087	$4,857 - $5,180	$27,520 - $29,353
14	$12,088 - $12,842	$12,088 - $12,842	$5,181 - $5,504	$29,354 - $31,188
13	$12,843 - $13,598	$12,843 - $13,598	$5,505 - $5,828	$31,189 - $33,023
12	$13,599 - $14,353	$13,599 - $14,353	$5,829 - $6,151	$33,024 - $34,857
11	$14,354 - $15,108	$14,354 - $15,108	$6,152 - $6,475	$34,858 - $36,692
10	$15,109 - $15,864	$15,109 - $15,864	$6,476 - $6,799	$36,693 - $38,526
9	$15,865 - $16,619	$15,865 - $16,619	$6,800 - $7,123	$38,527 - $40,361
8	$16,620 - $17,375	$16,620 - $17,375	$7,124 - $7,446	$40,362 - $42,195
7	$17,376 - $18,130	$17,376 - $18,130	$7,447 - $7,770	$42,196 - $44,030
6	$18,131 - $18,885	$18,131 - $18,885	$7,771 - $8,094	$44,031 - $45,865
5	$18,886 - $19,641	$18,886 - $19,641	$8,095 - $8,418	$45,866 - $47,699
4	$19,642 - $20,396	$19,642 - $20,396	$8,419 - $8,741	$47,700 - $49,534
3	$20,397 - $21,152	$20,397 - $21,152	$8,742 - $9,065	$49,535 - $51,368
2	$21,153 - $21,907	$21,153 - $21,907	$9,066 - $9,389	$51,369 - $53,203
1	$21,908 - $22,663	$21,908 - $22,663	$9,390 - $9,713	$53,204 - $55,038
0	$22,664 - $45,324	$22,664 - $45,324	$9,714 - $19,424	$55,039 - $110,074
-20	$45,325 Or More	$45,325 Or More	$19,425 Or More	$110,075 Or More

Table 15: Threshold Group A Capital Cost Score Table (Use for Initial DL 3)

Appendix D

Threshold Group A Capital Cost Score Table for DL 4 or 5

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$16,188	$32,375	$64,750
Sewer Limits:	$16,188	$32,375	$64,750
S W Limits:	$0	$0	$0
Total Limits:	$32,375	$64,750	$129,500

Group A Threshold
$ 129,500
Threshold for DL4&5
$ 129,500

Pts	Water	Sewer	Solid Waste	Total
16	Up To $16,188	Up To $16,188	$0	Up To $32,375
15	$16,189 - $17,267	$16,189 - $17,267	$0	$32,376 - $34,533
14	$17,268 - $18,346	$17,268 - $18,346	$0	$34,534 - $36,692
13	$18,347 - $19,425	$18,347 - $19,425	$0	$36,693 - $38,850
12	$19,426 - $20,504	$19,426 - $20,504	$0	$38,851 - $41,008
11	$20,505 - $21,583	$20,505 - $21,583	$0	$41,009 - $43,167
10	$21,584 - $22,663	$21,584 - $22,663	$0	$43,168 - $45,325
9	$22,664 - $23,742	$22,664 - $23,742	$0	$45,326 - $47,483
8	$23,743 - $24,821	$23,743 - $24,821	$0	$47,484 - $49,642
7	$24,822 - $25,900	$24,822 - $25,900	$0	$49,643 - $51,800
6	$25,901 - $26,979	$25,901 - $26,979	$0	$51,801 - $53,958
5	$26,980 - $28,058	$26,980 - $28,058	$0	$53,959 - $56,117
4	$28,059 - $29,138	$28,059 - $29,138	$0	$56,118 - $58,275
3	$29,139 - $30,217	$29,139 - $30,217	$0	$58,276 - $60,433
2	$30,218 - $31,296	$30,218 - $31,296	$0	$60,434 - $62,592
1	$31,297 - $32,375	$31,297 - $32,375	$0	$62,593 - $64,750
0	$32,376 - $64,749	$32,376 - $64,749	$0	$64,751 - $129,499
-20	$64,750 Or More	$64,750 Or More	$0	$129,500 Or More

Table 16: Threshold Group A Capital Cost Score Table (Use for Initial DL 4 or 5)

Appendix E

Threshold Group B Capital Cost Score Table for DL 2

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$7,525	$15,050	$30,100
Sewer Limits:	$7,525	$15,050	$30,100
S W Limits:	$3,763	$7,525	$15,050
Total Limits:	$18,813	$37,625	$75,250

Group B Threshold
$ 150,500
Threshold for DL2
$ 75,250

Pts	Water	Sewer	Solid Waste	Total
16	Up To $7,525	Up To $7,525	Up To $3,763	Up To $18,813
15	$7,526 - $8,027	$7,526 - $8,027	$3,764 - $4,013	$18,814 - $20,067
14	$8,028 - $8,528	$8,028 - $8,528	$4,014 - $4,264	$20,068 - $21,321
13	$8,529 - $9,030	$8,529 - $9,030	$4,265 - $4,515	$21,322 - $22,575
12	$9,031 - $9,532	$9,031 - $9,532	$4,516 - $4,766	$22,576 - $23,829
11	$9,533 - $10,033	$9,533 - $10,033	$4,767 - $5,017	$23,830 - $25,083
10	$10,034 - $10,535	$10,034 - $10,535	$5,018 - $5,268	$25,084 - $26,338
9	$10,536 - $11,037	$10,536 - $11,037	$5,269 - $5,518	$26,339 - $27,592
8	$11,038 - $11,538	$11,038 - $11,538	$5,519 - $5,769	$27,593 - $28,846
7	$11,539 - $12,040	$11,539 - $12,040	$5,770 - $6,020	$28,847 - $30,100
6	$12,041 - $12,542	$12,041 - $12,542	$6,021 - $6,271	$30,101 - $31,354
5	$12,543 - $13,043	$12,543 - $13,043	$6,272 - $6,522	$31,355 - $32,608
4	$13,044 - $13,545	$13,044 - $13,545	$6,523 - $6,773	$32,609 - $33,863
3	$13,546 - $14,047	$13,546 - $14,047	$6,774 - $7,023	$33,864 - $35,117
2	$14,048 - $14,548	$14,048 - $14,548	$7,024 - $7,274	$35,118 - $36,371
1	$14,549 - $15,050	$14,549 - $15,050	$7,275 - $7,525	$36,372 - $37,625
0	$15,051 - $30,099	$15,051 - $30,099	$7,526 - $15,049	$37,626 - $75,249
-20	$30,100 Or More	$30,100 Or More	$15,050 Or More	$75,250 Or More

Table 17: Threshold Group B Capital Cost Score Table (Use for Initial DL 2)

Appendix F

Threshold Group B Capital Cost Score Table for DL 3

Capital Cost Scores are determined by area and deficiency level.

S W Limits:	$5,644	$11,288	$22,575
Total Limits:	$31,981	$63,963	$127,925

Threshold for DL3
$ 127,925

Pts	Water	Sewer	Solid Waste	Total
16	Up To $13,169	Up To $13,169	Up To $5,644	Up To $31,981
15	$13,170 - $14,047	$13,170 - $14,047	$5,645 - $6,020	$31,982 - $34,113
14	$14,048 - $14,925	$14,048 - $14,925	$6,021 - $6,396	$34,114 - $36,245
13	$14,926 - $15,803	$14,926 - $15,803	$6,397 - $6,773	$36,246 - $38,378
12	$15,804 - $16,680	$15,804 - $16,680	$6,774 - $7,149	$38,379 - $40,510
11	$16,681 - $17,558	$16,681 - $17,558	$7,150 - $7,525	$40,511 - $42,642
10	$17,559 - $18,436	$17,559 - $18,436	$7,526 - $7,901	$42,643 - $44,774
9	$18,437 - $19,314	$18,437 - $19,314	$7,902 - $8,278	$44,775 - $46,906
8	$19,315 - $20,192	$19,315 - $20,192	$8,279 - $8,654	$46,907 - $49,038
7	$20,193 - $21,070	$20,193 - $21,070	$8,655 - $9,030	$49,039 - $51,170
6	$21,071 - $21,948	$21,071 - $21,948	$9,031 - $9,406	$51,171 - $53,302
5	$21,949 - $22,826	$21,949 - $22,826	$9,407 - $9,783	$53,303 - $55,434
4	$22,827 - $23,704	$22,827 - $23,704	$9,784 - $10,159	$55,435 - $57,566
3	$23,705 - $24,582	$23,705 - $24,582	$10,160 - $10,535	$57,567 - $59,698
2	$24,583 - $25,460	$24,583 - $25,460	$10,536 - $10,911	$59,699 - $61,830
1	$25,461 - $26,338	$25,461 - $26,338	$10,912 - $11,288	$61,831 - $63,963
0	$26,339 - $52,674	$26,339 - $52,674	$11,289 - $22,574	$63,964 - $127,924
-20	$52,675 Or More	$52,675 Or More	$22,575 Or More	$127,925 Or More

Table 18: Threshold Group B Capital Cost Score Table (Use for Initial DL 3)

Appendix G

Threshold Group B Capital Cost Score Table for DL 4 or 5

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$18,813	$37,625	$75,250
Sewer Limits:	$18,813	$37,625	$75,250
S W Limits:	$0	$0	$0
Total Limits:	$37,625	$75,250	$150,500

Group B Threshold
$ 150,500
Threshold for DL4&5
$ 150,500

Pts	Water	Sewer	Solid Waste	Total
16	Up To $18,813	Up To $18,813	$0	Up To $37,625
15	$18,814 - $20,067	$18,814 - $20,067	$0	$37,626 - $40,133
14	$20,068 - $21,321	$20,068 - $21,321	$0	$40,134 - $42,642
13	$21,322 - $22,575	$21,322 - $22,575	$0	$42,643 - $45,150
12	$22,576 - $23,829	$22,576 - $23,829	$0	$45,151 - $47,658
11	$23,830 - $25,083	$23,830 - $25,083	$0	$47,659 - $50,167
10	$25,084 - $26,338	$25,084 - $26,338	$0	$50,168 - $52,675
9	$26,339 - $27,592	$26,339 - $27,592	$0	$52,676 - $55,183
8	$27,593 - $28,846	$27,593 - $28,846	$0	$55,184 - $57,692
7	$28,847 - $30,100	$28,847 - $30,100	$0	$57,693 - $60,200
6	$30,101 - $31,354	$30,101 - $31,354	$0	$60,201 - $62,708
5	$31,355 - $32,608	$31,355 - $32,608	$0	$62,709 - $65,217
4	$32,609 - $33,863	$32,609 - $33,863	$0	$65,218 - $67,725
3	$33,864 - $35,117	$33,864 - $35,117	$0	$67,726 - $70,233
2	$35,118 - $36,371	$35,118 - $36,371	$0	$70,234 - $72,742
1	$36,372 - $37,625	$36,372 - $37,625	$0	$72,743 - $75,250
0	$37,626 - $75,249	$37,626 - $75,249	$0	$75,251 - $150,499
-20	$75,250 Or More	$75,250 Or More	$0	$150,500 Or More

Table 19: Threshold Group B Capital Cost Score Table (Use for Initial DL 4 or 5)

Appendix H

Threshold Group C Capital Cost Score Table for DL 2

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$8,400	$16,800	$33,600
Sewer Limits:	$8,400	$16,800	$33,600
S W Limits:	$4,200	$8,400	$16,800
Total Limits:	$21,000	$42,000	$84,000

Group C Threshold
$ 168,000
Threshold for DL2
$ 84,000

Pts	Water	Sewer	Solid Waste	Total
16	Up To $8,400	Up To $8,400	Up To $4,200	Up To $21,000
15	$8,401 - $8,960	$8,401 - $8,960	$4,201 - $4,480	$21,001 - $22,400
14	$8,961 - $9,520	$8,961 - $9,520	$4,481 - $4,760	$22,401 - $23,800
13	$9,521 - $10,080	$9,521 - $10,080	$4,761 - $5,040	$23,801 - $25,200
12	$10,081 - $10,640	$10,081 - $10,640	$5,041 - $5,320	$25,201 - $26,600
11	$10,641 - $11,200	$10,641 - $11,200	$5,321 - $5,600	$26,601 - $28,000
10	$11,201 - $11,760	$11,201 - $11,760	$5,601 - $5,880	$28,001 - $29,400
9	$11,761 - $12,320	$11,761 - $12,320	$5,881 - $6,160	$29,401 - $30,800
8	$12,321 - $12,880	$12,321 - $12,880	$6,161 - $6,440	$30,801 - $32,200
7	$12,881 - $13,440	$12,881 - $13,440	$6,441 - $6,720	$32,201 - $33,600
6	$13,441 - $14,000	$13,441 - $14,000	$6,721 - $7,000	$33,601 - $35,000
5	$14,001 - $14,560	$14,001 - $14,560	$7,001 - $7,280	$35,001 - $36,400
4	$14,561 - $15,120	$14,561 - $15,120	$7,281 - $7,560	$36,401 - $37,800
3	$15,121 - $15,680	$15,121 - $15,680	$7,561 - $7,840	$37,801 - $39,200
2	$15,681 - $16,240	$15,681 - $16,240	$7,841 - $8,120	$39,201 - $40,600
1	$16,241 - $16,800	$16,241 - $16,800	$8,121 - $8,400	$40,601 - $42,000
0	$16,801 - $33,599	$16,801 - $33,599	$8,401 - $16,799	$42,001 - $83,999
-20	$33,600 Or More	$33,600 Or More	$16,800 Or More	$84,000 Or More

Table 20: Threshold Group C Capital Cost Score Table (Use for Initial DL 2)

Appendix I

Threshold Group C Capital Cost Score Table for DL 3

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$14,700	$29,400	$58,800
Sewer Limits:	$14,700	$29,400	$58,800
S W Limits:	$6,300	$12,600	$25,200
Total Limits:	$35,700	$71,400	$142,800

Group C Threshold
$ 168,000
Threshold for DL3
$ 142,800

Pts	Water	Sewer	Solid Waste	Total
16	Up To $14,700	Up To $14,700	Up To $6,300	Up To $35,700
15	$14,701 - $15,680	$14,701 - $15,680	$6,301 - $6,720	$35,701 - $38,080
14	$15,681 - $16,660	$15,681 - $16,660	$6,721 - $7,140	$38,081 - $40,460
13	$16,661 - $17,640	$16,661 - $17,640	$7,141 - $7,560	$40,461 - $42,840
12	$17,641 - $18,620	$17,641 - $18,620	$7,561 - $7,980	$42,841 - $45,220
11	$18,621 - $19,600	$18,621 - $19,600	$7,981 - $8,400	$45,221 - $47,600
10	$19,601 - $20,580	$19,601 - $20,580	$8,401 - $8,820	$47,601 - $49,980
9	$20,581 - $21,560	$20,581 - $21,560	$8,821 - $9,240	$49,981 - $52,360
8	$21,561 - $22,540	$21,561 - $22,540	$9,241 - $9,660	$52,361 - $54,740
7	$22,541 - $23,520	$22,541 - $23,520	$9,661 - $10,080	$54,741 - $57,120
6	$23,521 - $24,500	$23,521 - $24,500	$10,081 - $10,500	$57,121 - $59,500
5	$24,501 - $25,480	$24,501 - $25,480	$10,501 - $10,920	$59,501 - $61,880
4	$25,481 - $26,460	$25,481 - $26,460	$10,921 - $11,340	$61,881 - $64,260
3	$26,461 - $27,440	$26,461 - $27,440	$11,341 - $11,760	$64,261 - $66,640
2	$27,441 - $28,420	$27,441 - $28,420	$11,761 - $12,180	$66,641 - $69,020
1	$28,421 - $29,400	$28,421 - $29,400	$12,181 - $12,600	$69,021 - $71,400
0	$29,401 - $58,799	$29,401 - $58,799	$12,601 - $25,199	$71,401 - $142,799
-20	$58,800 Or More	$58,800 Or More	$25,200 Or More	$142,800 Or More

Table 21: Threshold Group C Capital Cost Score Table (Use for Initial DL 3)

Appendix J

Threshold Group C Capital Cost Score Table for DL 4 or 5

Capital Cost Scores are determined by area and deficiency level. Values provided 'per home'.

	Low	Average	Ceiling
Water Limits:	$21,000	$42,000	$84,000
Sewer Limits:	$21,000	$42,000	$84,000
S W Limits:	$0	$0	$0
Total Limits:	$42,000	$84,000	$168,000

Group C Threshold
$ 168,000
Threshold for DL4&5
$ 168,000

Pts	Water	Sewer	Solid Waste	Total
16	Up To $21,000	Up To $21,000	$0	Up To $42,000
15	$21,001 - $22,400	$21,001 - $22,400	$0	$42,001 - $44,800
14	$22,401 - $23,800	$22,401 - $23,800	$0	$44,801 - $47,600
13	$23,801 - $25,200	$23,801 - $25,200	$0	$47,601 - $50,400
12	$25,201 - $26,600	$25,201 - $26,600	$0	$50,401 - $53,200
11	$26,601 - $28,000	$26,601 - $28,000	$0	$53,201 - $56,000
10	$28,001 - $29,400	$28,001 - $29,400	$0	$56,001 - $58,800
9	$29,401 - $30,800	$29,401 - $30,800	$0	$58,801 - $61,600
8	$30,801 - $32,200	$30,801 - $32,200	$0	$61,601 - $64,400
7	$32,201 - $33,600	$32,201 - $33,600	$0	$64,401 - $67,200
6	$33,601 - $35,000	$33,601 - $35,000	$0	$67,201 - $70,000
5	$35,001 - $36,400	$35,001 - $36,400	$0	$70,001 - $72,800
4	$36,401 - $37,800	$36,401 - $37,800	$0	$72,801 - $75,600
3	$37,801 - $39,200	$37,801 - $39,200	$0	$75,601 - $78,400
2	$39,201 - $40,600	$39,201 - $40,600	$0	$78,401 - $81,200
1	$40,601 - $42,000	$40,601 - $42,000	$0	$81,201 - $84,000
0	$42,001 - $83,999	$42,001 - $83,999	$0	$84,001 - $167,999
-20	$84,000 Or More	$84,000 Or More	$0	$168,000 Or More

Table 22: Threshold Group C Capital Cost Score Table (Use for Initial DL 4 or 5)

Appendix K

Alaska SDS Deficiency Level Information

Introduction

The following tables provide detailed information about deficiency level scoring used in the Sanitation Deficiency System (SDS). These tables are separated by category – water, wastewater, and solid waste – and broken down using specific examples including Alaska only examples. This information includes national and state guidelines and specific guidance for some unusual Alaska situations. For clarification of any of this information, contact ANTHC Director of Operations Matt Dixon or Steve Bolan at the IHS.

General Information

When assigning deficiency levels, please note the following about these topics:

- *Routine Maintenance*. Some of the examples use the phrase "not correctable by routine maintenance." This applies to all examples with the exception of deficiency level 1. Routine maintenance includes all scheduled maintenance and short-term equipment replacements, such as pump replacements, control component replacements, tank painting, septic tank pumping, filter sand replacement, etc.
- *Existing Deficiencies*. The SDS was not designed to include future deficiencies. Only existing deficiencies may be included. Many Areas report facilities that they describe as "deteriorating." The deficiency level assigned to deteriorating facilities will depend on the estimated time for the facility or facility component to fail. Deteriorating facilities correctable by routine maintenance are level 1.
- *Not Meeting Criteria for Higher-Level Deficiencies*. In the past, examples have been given that referred to conditions that "do not meet criteria for higher level deficiencies." These conditions were mostly at level 2. These references are no longer used. Instead, follow the general procedure of assigning the greatest applicable deficiency level and not including any deficiencies correctable by routine maintenance.
- *Initial and Final Deficiency Levels*. If improved service is not provided directly to the homes via a piped or haul system, the initial and final deficiency levels should be the same. For example, if a WST is being proposed for a washeteria, the initial and final deficiency level would be 4 because the level of service to the homes has not been directly improved.
- *Project Deficiency Levels*. The initial deficiency level for a project is the deficiency level of the majority of the work as determined by the cost. An example is a community that has an arsenic problem with a proposed scope of work of a new filter system ($60,000) in a new WTP ($550,000). The arsenic violates an existing MCL and is a deficiency level 4. A new WTP is needed but is only a deficiency level 2. Since the majority of the project cost is going to the WTP, the deficiency level of the WTP is considered the overall project deficiency level. Therefore, the initial deficiency level for the project is 2.
- *Unusual Situations*. The national guidelines define circumstances that allow for the assignment of deficiency level 3 for "unusual situations" where system failure will occur within 4 years. Aging systems do not fit the definition of an unusual situation. Most water and wastewater

systems in the United States are aging; therefore, they do not meet the definition of an unusual situation.

- *Bulk Fuel*. A project to install bulk fuel to meet the needs of a washeteria, a water system, or a sewer system where adequate fuel storage was not previously installed is a deficiency level 4. Bulk fuel systems that need replacement because of worn out or neglected parts would be a deficiency level 3 or 2. Deficiency level 3 if failure of the system will happen within 4 years, and deficiency level 2 if parts need routine maintenance Bulk fuel systems that need to be replaced because of worn out parts are assigned a deficiency level 3 while bulk fuel systems that need to be replaced because of neglected parts are assigned a deficiency level 2.
- *Fire Flow*. Fire flow requirements are not allowable SDS deficiencies and should not be included in SDS.
- *Solid Waste Projects*. Solid Waste Projects cannot be greater than a deficiency level of 3.

Table 1 below provides a general overview of the deficiency levels assigned in the SDS and their associated deficiency level scores. For more specific information, please see the attached tables that breakdown deficiency levels by category and example.

Table 23: General Deficiency Levels by Number and the Associated DL Score.
Note that water/sewer haul systems can fit into two deficiency levels. A large truck haul system may have a DL of 2, but trailer haul systems may have a DL of 3. Individual haul honey bucket systems have a DL of 4. Also note that solid waste projects cannot have an initial deficiency level above 3.

Deficiency Level	Score	Description of Existing System
1	0	Piped water and sewer to homes.
2	6	System provides sufficient safe water and sewage disposal facilities to maintain good health, but inadequacies exist. (Includes piped systems that are somehow inadequate and water and sewer truck haul systems with storage and plumbing in home.)
3	12	System does not provide sufficient safe water and sewage disposal facilities to maintain good health. (Includes water and sewer trailer haul systems with storage and plumbing in home.)
4	18	Central watering point and/or washeteria only. Pit privies or honey buckets used for sewage disposal.
5	18	No water and sewer facilities.

General and Miscellaneous Water Information

Deficiency Level	Description of Existing System or Component
1	See General Deficiency Level Description.
2	See General Deficiency Level Description.
3	• The system is without water for brief periods more than 4 times per year due to design, construction, or deterioration problems (includes power reliability and lack of emergency power). • The system is out of compliance with environmental regulations due to facility deficiencies (i.e., not operational or maintenance problems) other than maximum contaminant levels (MCLs). • There is an unusual situation where a major system component failure within 4 years caused by deteriorated facilities not correctable by routine maintenance will make the system inoperable (e.g., an unreliable source, a transmission main problem, a structural problem, a water intake problem, a well encrustation problem, or an iron bacteria problem). Examples include the well yield decreasing or settlement that will cause failure of the transmission main from the only water source. • There are cross-connections with non-potable sources (e.g., distribution, storage, treatment, etc.). • There is a utility water haul system with on-site storage and plumbing, and it is feasible to provide a piped water system.
4	• There is no piped water in home (see the Water Distribution Table deficiency level 3 or level 2 when designed water hauling or central watering facilities have been provided because of the economic infeasibility of community piped water). • The community water system is without water routinely for more than 10 days/year (i.e., the facilities are inadequate, but there are no O&M problems). • A home is in need of interior plumbing for minimal water facilities, and there is access to community facilities (i.e., water mains).
5	• A home is in need of interior plumbing for minimal water facilities, but there is not access to community facilities (i.e., water mains).

Water Source Information

Deficiency Level	Description of Existing System or Component
1	• Need to correct drainage problems. • Need to repair fencing. • Need to perform other routine maintenance. • Need to repair backup pumps. • Need to repair pumps on backup water sources.

Deficiency Level	Description of Existing System or Component
2	• The water source does not meet current design standards (e.g., having two wells is the current design standard, but the community has only one well for the community water system although implementing an additional water source is economically feasible). • The water does not meet secondary drinking water standards. • There is a surface water intake problem. • There is fencing around the water source. • The existing wells are being abandoned in accordance with standards. • There are iron bacteria problems. • There are well construction or spring development problems. • There is a well located in a floodplain, which causes operational problems. • The water source lacks automatic controls, which causes operational problems. • The pollution source and water source separations do not meet current standards, but no documented contamination problems are on record. • There is aboveground well discharge, which causes operational problems. • There is a deteriorated water source that is not correctable by routine maintenance (see the examples listed in levels 3 and 4).
3	• There is an unusual situation where a progressively deteriorating water source that is not correctable by routine maintenance will result in water source failure within 4 years due to design, construction, or deterioration. An example is reduced well yield due to the lowering ground water table with no backup source. • Need corrosion control repairs, studies, or projects, and the system meets the Lead and Copper Rule.
4	• There is a surface water source with no filtration. • There is a spring or well providing bacteriologically unsafe water although it receives proper maintenance. This constitutes a continuous, ongoing problem. • The water does not meet all maximum contaminant levels (MCLs) at tap for primary contaminants. • There is an individual water source providing less than 30 gpcd for more than 20 days per year. • There is a community water source that provides less than 35 gpcd for 10 days during the year on a regular basis. • Need corrosion control repairs, studies, or projects and the system does not meet the Lead and Copper Rule.
5	See General Deficiency Level Description.

Water Treatment Information

Deficiency Level	Description of Existing System or Component
1	• Need to paint treatment equipment. • Need to repair fencing. • Need to perform routine building repairs. • Need to repair standby pumps and equipment. • Need to replace chemical feed equipment.

Deficiency Level	Description of Existing System or Component
2	• There are deteriorated water treatment facilities that are not correctable by routine maintenance. An example is structural failure of a system component. • The treatment units daily operating period exceeds the current design standard (e.g., the units operate 20 hours/day, but the design standard is for them to run 12 hours/day). • There is chlorination or fluoridation equipment needed to comply with current design standards although the equipment is not required by regulations or because of a history of poor bacteriological testing. • The water treatment does not provide water meeting secondary drinking water standards. • A separate room is needed for chemicals at the water treatment facility. • The water treatment plant has exceeded its design life, has numerous operating problems and requires replacement for efficient, effective operation. • Fencing around the water treatment facility is needed to meet design standard requirements. • Need to correct iron bacteria problems.
3	• There is an unusual situation where deteriorated water treatment facilities or facility components not correctable by routine maintenance will make water treatment facilities inoperable within 4 years due to design, construction, or deterioration problems. An example is structural failure of a system component. • Water treatment facilities are inoperable more than 4 times per year due to design, construction, or deterioration problems. • The treatment facility runs at full capacity (i.e., 24 hrs/day) to meet currently acceptable design standards for gpcd domestic use for community facilities. • The water treatment does not comply with the surface water treatment rule but does meet maximum contaminant levels (MCLs) for a water source. • Corrosion control to comply with the Safe Drinking Water Act is required. MCL standards and the Lead and Copper Rule are currently being met. . • Need corrosion control repairs, studies, or projects, and the system meets the Lead and Copper Rule. • Inadequate contact time for disinfections exists.
4	• The water treatment facilities are not capable of producing treated water that meets primary drinking water standards with proper operation and maintenance. • There is a surface water source with no filtration. • Need corrosion control repairs, studies, or projects and the system does not meet the Lead and Copper Rule.
5	See General Deficiency Level Description.

Water Storage Information

Deficiency Level	Description of Existing System or Component
1	• Need to paint tanks. • Need to repair fencing. • Need to replace locks. • Need to correct drainage problems. • Need to correct inoperable water level gauges. • Need to repair minor leaks, piping connections, control connections, etc.
2	• There are deteriorated water storage facilities that are not correctable by routine maintenance. An example is a foundation problem on an elevated storage tank. • There is inadequate water storage to meet current use requirements (e.g., there is one day of water storage, but the design standard is for 2 days based on applicable gpcd design criteria). • The water storage facility for a fill and draw system does not meet the design standard for its current use. • Fencing is needed around the water storage facilities. • Need to provide safety cages on water storage tanks. • Need to rehabilitate the tank more so than normal maintenance associated with painting. • The storage tank coatings do not meet current standards.
3	• There is water storage tank leakage not associated with piping connections, fittings, controls, etc. • There is an unusual situation where deteriorated water storage facilities or facility components not correctable by routine maintenance will result in water storage failure within 4 years due to design, construction, or deterioration. • Water storage on a fill and draw system provides less than 2/3 of the applicable design standard for gpcd storage for the user population during the non-fill period. • Need corrosion control repairs, studies, or projects, and the system meets the Lead and Copper Rule.
4	• There is water storage on a fill and draw system that provides less than 1/3 of applicable gpcd design standards for the community for a period when filling is not possible. • Need corrosion control repairs, studies, or projects and the system does not meet the Lead and Copper Rule.
5	See General Deficiency Level Description.

Water Distribution Information

Deficiency Level	Description of Existing System or Component
1	• Need to fix hydrants. • Need to fix gate values. • Need to repair minor leaks. • Need to paint hydrants. • Need to repair or replace markers. • Need to update as-builts. • Need to repair backup pumps.
2	• There are deteriorated water mains that are not correctable by routine maintenance. • There are inadequate water distribution system as-builts. • The current system operating pressure is less than the design standard of 20 psi. • The pumping cycle for pumps exceeds the design standard (e.g., the pump cycle runs for 16 hours, but the design standard calls for a completed cycle in 12 hours.) • Water meters are needed and requested. • There are deteriorated service lines that require replacement. • Water lines require looping to correct water quality or pressure problems in the system. • A direct line from the water source to storage is needed to correct water treatment or distribution problems. • Inoperable hydrants or gate valves require replacement. • The water main size does not meet current standards and is causing operational problems. • There is a watering point, washeteria, or water haul system, and improving facilities is not feasible. • There is system leakage that causes operations problems. • There are excessive pressure surges in the water mains causing operational problems. • Additional flush hydrants are needed to correct water quality problems. • There are problems with different overflow elevations on the storage tanks that need to be corrected. • Need to repair haul vehicles.

Deficiency Level	Description of Existing System or Component
3	• The water distribution system has leakage that exceeds 15 percent of the design flow for the entire system. • There are more than four water main breaks per year that are caused by improper design, construction, or deteriorating pipe. • There is an unusual situation where deteriorated facilities or facility components are not correctable by routine maintenance and will cause system failure within 4 years due to deterioration, design, or construction. • There is water pressure less than 10 psi 25% of the time or daily during peak use periods. • There is a utility authority water haul program with on-site storage and plumbing, and it is feasible to construct a piped water system. • Need to replace haul vehicles.
4	• The watering point or washeteria needs improvements, and the improved facilities are feasible. • There is an individual water haul system with on-site storage and plumbing, and a piped water system is feasible. • There is a summer distribution system with a watering point the remainder of the year. • There is water pressure of 5 psi under dynamic water flow conditions daily in the distribution system. • Need to replace inadequately sized haul vehicles or provide haul vehicles when none are currently in place.
5	See General Deficiency Level Description.

Individual and Specific Water Information

Deficiency Level	Description of Existing System or Component
1	• Need to correct drainage problems around wells and springs. • Need to repair individual pump houses. • Need to replace well caps or well seals.
2	• There are individual wells or springs that do not provide water that meets secondary drinking water standards. • There are deteriorated individual water supply facilities not correctable by routine maintenance.
3	• There are individual wells or springs with yields of less than 1 gpm or less than 75 gpcd capacity.
4	• There is a spring or well providing bacteriologically unsafe water although proper maintenance is being performed. This is a confirmed, continuing problem. • There is a water source that provides less than 30 gpcd for more than 20 days per year. • There is an unprotected spring or well (i.e., open spring or open well). • The water does not meet maximum contaminant levels (MCLs) at tap although proper maintenance is being performed. • There are seasonal dry wells or springs.
5	See General Deficiency Level Description.

General and Miscellaneous Wastewater Information

Deficiency Level	Description of Existing System or Component
1	• Need to perform general routine maintenance and repairs.
2	• There are sewage treatment and collection facilities that do not meet current design standards based on current flows. • The standby and emergency component power needs are not being met. • There are safety hazards to utility personnel associated with sewage lift stations, treatment plants, etc. • The deteriorated sewage treatment collection or disposal facilities are not correctable by routine maintenance. • There is a utility authority sewage-hauling program with on-site storage and plumbing, and constructing a piped sewage system is not feasible. • Need to purchase a pumper truck or trailer to replace a previously purchased truck or trailer that is now inoperable due to neglect.
3	• There is an unusual situation where deteriorated facilities not correctable by routine maintenance will cause failure of any sewer system component within 4 years and create a level 4 deficiency. • There is a utility authority sewage-hauling program with on-site storage and plumbing, and constructing a piped sewage system is feasible. • Need to purchase a pumper truck or trailer and no previous pumper truck or trailer has been purchased or a previously purchased truck or trailer is now inadequately sized (e.g., a 250-gallon pumper was purchased when a 500-gallon pumper is now required).
4	• There is no piped wastewater system. Unless, a utility authority with a sewage-hauling program with on-site storage and plumbing exists. • There is piped graywater only. • There is unrestricted access to partially treated sewage discharged into the environment within 500 feet of occupied homes. Partially treated sewage includes ▪ overflowing lagoons ▪ surfacing community drainfields
5	See General Deficiency Level Description.

Wastewater Collection Information

Deficiency Level	Description of Existing System or Component
1	• Need to repair manholes. • Need to paint the lift station(s). • Need to repair the standby pumping equipment. • Need to repair controls.

Deficiency Level	Description of Existing System or Component
2	• There are sewer systems including lift stations and force mains with overflow problems. • There are inadequate sewer system as-builts. • There are deteriorated sewer mains that are causing operational problems. • There are deteriorated sewage lift stations that are causing operational problems. • There is infiltration that exceeds 10% of the design flow. • There is exfiltration that exceeds 5% of the design flow. • There are sewer main root or construction problems that cause backups and/or overflows. • There are sewer service line root or construction problems. • Cleanouts are needed on the force main. • There are utility sewage haul systems with houseplumbing and on-site storage, and a piped sewage system is not feasible. • Need to repair haul vehicles.
3	• There are sewage lift station overflows that result from design, construction, or deteriorating facilities more than 3 times per year. • There are sewer overflows more than 3 times per year due to inadequate main sizes. • There is sewer system infiltration that exceeds 20% of the system design flow (e.g., in the sewer mains, wet wells, manholes, service lines, etc.) continuously or at least on 10 occurrences per year. • There is sewer system exfiltration that exceeds 10% of the system design flow. (This may be coded as a greater deficiency if it is causing contamination of the drinking water aquifer.) • There are utility sewage haul systems with household plumbing connected to a storage tank, and a piped sewage system is feasible. • There are more than three sewer main breaks per year caused by improper design, construction, or deteriorating pipes. • There is an unusual situation where a deteriorated collection system component (e.g., the lift station, force mains, or the sewer mains) not correctable by routine maintenance will result in a level 4 deficiency within 4 years. • There are sewer main construction, design, or root problems causing plugging with overflows more than 3 times per year. • Need to replace haul vehicles.
4	• There is an individual or community honey bucket haul system. • At least 2 times per year, sewage backs up into homes because of construction design or deteriorating facilities. • A home is in need of interior plumbing for minimal wastewater facilities, and there is access to community facilities (i.e., sewer mains). • Need to replace inadequately sized haul vehicles or provide haul vehicles when none are currently in place.
5	• A home is in need of interior plumbing for minimal wastewater facilities, but there is not access to community facilities (i.e., sewer mains).

Wastewater Treatment Information

Deficiency Level	Description of Existing System or Component
1	• Need to repair lagoon fencing. • Need to paint the sewage treatment plant. • Need to repair the standby equipment. • Need to repair the backup equipment. • Need to weed control the lagoon dikes. • Need to control the drainage.
2	• There is tree and weed growth in the bottom of the lagoon because of facility deficiencies. • There is lagoon dike seepage. • There is lagoon dike erosion. • There are deteriorated sewage treatment plant components that are not correctable by routine maintenance that cause operational problems. • There are old, unused sewage treatment facilities not properly abandoned. • There are problems with the ocean outfall. • The lagoon organic loading exceeds standards. • The lagoon liner needs repairs. • There are operational problems with the single cell lagoon.
3	• There have been violations of the discharge permit more than 10% of the time because of inadequate facilities. • The lagoon has been overflowing without discharge permits (i.e., the lagoon is designed for total retention) more than 10% of the time. • There has been lagoon seepage in the primary or the secondary cell that is at least 10 times the current applicable standard, and there is ground water less than 50 feet below the surface. • There has been progressive lagoon dike erosion that is not correctable by routine maintenance that will cause dike failure within 3 years. • There has been dike seepage where seepage creates a continuous flow of sewage effluent in a defined channel. • The sewage treatment plant is not complying with the discharge permit 10% of the time because of inadequate facilities. • There is a deteriorated sewage treatment plant component that is not correctable by routine maintenance and will fail within 4 years and create level 4 deficiencies. • The primary lagoon cell does not hold any liquid.
3	• There is a deteriorated sewage treatment system component due to deteriorating facilities, design, or construction that is not correctable by routine maintenance and that will cause continuous violation of the discharge permit within 2 years. • The sewage treatment plant is at capacity with the current flow. • Sludge disposal facilities are required to comply with new regulations. • The community drainfield has surfacing sewage effluent located less than 500 feet from occupied homes.

Deficiency Level	Description of Existing System or Component
4	• There are privies for waste disposal. • Raw sewage is routinely discharged into the environment.
5	See General Deficiency Level Description.

On-Site Wastewater Information

Deficiency Level	Description of Existing System or Component
1	• Need to repair individual systems.

2	• There are septic systems that do not meet current design standards. Some of the deficiencies include
	  ▪ high ground water
	  ▪ inadequate separation from water sources
	  ▪ small sites with no replacement alternatives
	  ▪ structural damage to the tank or the subsurface disposal system
	• There is no site available for septage disposal.
	• Abandoned on-site wastewater facilities are not properly closed.

3	• There is documented ground water contamination by septic tank systems, but the drinking water aquifer is not affected. • There are surfacing drainfields at individual sites. • Cesspools or similar types of facilities are used for waste disposal. • There are seepage pits for graywater without settling tanks.
4	• There is wastewater surfacing on individual home sites continuously or for a minimum of 20 days/year. • The sewer backs up into homes every year because of high groundwater in the absorption system. • Privies are the main source of individual home waste disposal. • There is documented groundwater contamination in the drinking water aquifer by septic tank systems.
5	See General Deficiency Level Description.

Solid Waste Collection Information

Deficiency Level	Description of Existing System or Component
1	• Need to repair the collection equipment. • Need to perform maintenance on the transfer station(s). • Need to repair the equipment storage building. • Need to repair the fence.
2	• There is inadequate collection equipment. • A transfer station is needed. (Note: a project to construct a transfer station is a level 2 project unless an existing level 3 disposal site has not been properly closed or the disposal site can no longer be used because of restricted access or other reasons.) • There are inadequate collection system storage facilities. • There is inadequate on-site waste storage.
3	See General Deficiency Level Description.
4	Solid waste projects do not qualify for this deficiency level.

Deficiency Level	Description of Existing System or Component
5	Solid waste projects do not qualify for this deficiency level.

Solid Waste Disposal Information

Deficiency Level	Description of Existing System or Component
1	• Need to repair the equipment. • Need to paint. • Need to repair fences. • Need to repair on-site buildings.
2	• There is an old dumpsite that is not properly closed with restricted access. • There is an improperly operated site because of a lack of adequately maintained or repaired equipment. • There are inadequate storage facilities at the site for the site maintenance equipment. • The current landfill site will be at capacity within 4 years and will require a new site. • An existing off-reservation non-tribal landfill is closing within 4 years and requires construction of a transfer station or disposal site on the reservation. • Site improvements are needed to meet current design standards.
3	• An open dump (i.e., with unrestricted access, no covering, open burning, etc.) is being used. • There is an old dumpsite with unrestricted access, no maintenance, and occasional dumping. • There is a landfill operating with groundwater contamination problems. • The landfill does not meet site location criteria. • There is a landfill with unrestricted access. • An improperly developed landfill site is being used (i.e., the site development does not meet regulatory requirements). • There is a previously used landfill with ground water or surface water contamination problems. • There is scattered open dumping with no collection, transfer station, or disposal site reasonably available. Development of a solid waste management program for the Area is feasible and workable. • The solid waste management program never had adequate equipment to properly operate the site. The site is currently being operated improperly.
4	Solid waste projects do not qualify for this deficiency level.
5	Solid waste projects do not qualify for this deficiency level.

Appendix L

EPA National Primary Drinking Water Standards

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
OC	Acrylamide	TT[8]	Nervous system or blood problems;	Added to water during sewage/wastewater	Zero
OC	Alachlor	0.002	Eye, liver, kidney, or spleen problems; anemia; increased risk of cancer	Runoff from herbicide used on row crops	Zero
R	Alpha particles	15 picocuries per Liter (pCi/L)	Increased risk of cancer	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known of alpha radiation	Zero
IOC	Antimony	0.006	Increase in blood cholesterol; decrease in blood sugar	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	0.006
IOC	Arsenic	0.010	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer	Erosion of natural deposits; runoff from orchard, runoff from glass and electronics production wastes	0
IOC	Asbestos (fibers >10 micrometers)	7 million fibers per Liter (MFL)	Increased risk of developing benign intestinal polyps	Decay of asbestos cement in water mains; erosion of natural deposits	7 MFL
OC	Atrazine	0.003	Cardiovascular system or reproductive problems	Runoff from herbicide used on row crops	0.003
IOC	Barium	2	Increase in blood pressure	Discharge of drilling wastes; discharge from metal refineries	2
OC	Benzene	0.005	Anemia; decrease in blood platelets; increased risk of cancer	Discharge from factories; leaching from gas storage tanks and landfills	Zero
OC	Benzo(a)pyrene (PAHs)	0.0002	Reproductive difficulties; increased risk of cancer	Leaching from linings of water storage tanks and distribution lines	Zero
IOC	Beryllium	0.004	Intestinal lesions	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	0.004
R	Beta photon emitters	4 millirems per year	Increased risk of cancer	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photos and beta radiation	Zero
DBP	Bromate	0.010	Increased risk of cancer	Byproduct of drinking water disinfection	Zero

D Disinfectant = DL3

IOC Inorganic Chemical = DL4

OC Organic Chemical = DL4

DBP Disinfection Byproduct = DL3

M Microorganism = DL4

R Radionuclides = DL4

DL = Deficiency Level

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
IOC	Cadmium	0.005	Kidney damage	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	0.005
OC	Carbofuran	0.04	Problems with blood, nervous system, or reproductive system	Leaching of soil fumigant used on rice and alfalfa	0.04
OC	Carbon tetrachloride	0.005	Liver problems; increased risk of cancer	Discharge from chemical plants and other industrial activities	Zero
D	Chloramines (as $CL_{2)}$	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort; anemia	Water additive used to control microbes	MRDLG=4[1]
OC	Chlordane	0.002	Liver or nervous system problems; increased risk of cancer	Residue of banned termiticide	Zero
D	Chlorine (as $CL_{2)}$	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort	Water additive used to control microbes	MRDL G=4[1]
D	Chlorine dioxide (as $ClO_{2)}$	MRDL=0.8[1]	Anemia; infants and young children: nervous system effects	Water additive used to control microbes	MRDL G =0.8[1]
DBP	Chlorite	1.0	Anemia; infants and young children: nervous system effects	Byproduct of drinking water disinfection	0.8
OC	Chlorobenzene	0.1	Liver or kidney problems	Discharge from chemical and agricultural chemical factories	0.1
IOC	Chromium (total)	0.1	Allergic dermatitis	Discharge from steel and pulp mills; erosion of natural deposits	0.1
IOC	Copper	TT[7]; Action Level = 1.3	Short term exposure: Gastrointestinal distress. Long term exposure: Liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	Corrosion of household plumbing systems; erosion of natural deposits	1.3
M	Cryptosporidium	TT[3]	Gastrointestinal illness (e.g. , diarrhea, vomiting, cramps)	Human and animal fecal waste	Zero
IOC	Cyanide (as free cyanide)	0.2	Nerve damage or thyroid problems	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	0.2
OC	2, 4-D	0.07	Kidney, liver, or adrenal gland problems	Runoff from herbicide used on row crops	0.07
OC	Dalapon	0.2	Minor kidney changes	Runoff from herbicide used on rights of way	0.2
OC	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	Reproductive difficulties; increased risk of cancer	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Zero
OC	o-Dichlorobenzene	0.6	Liver, kidney, or circulatory system problems	Discharge from industrial chemical factories	0.6
OC	p-Dichlorobenzene	0.075	Anemia; liver, kidney, or spleen damage; changes in blood	Discharge from industrial chemical factories	0.075
OC	1,2-Dichloroethane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	Zero

D **Disinfectant = DL3**

IOC **Inorganic Chemical = DL4**

OC **Organic Chemical = DL4**

DBP **Disinfection Byproduct = DL3**

M **Microorganism = DL4**

R **Radionuclides = DL4**

DL = Deficiency Level

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
OC	1,1-Dichloroethylene	0.007	Liver problems	Discharge from industrial chemical factories	0.007
OC	Cis-1,2-Dichloroethylene	0.07	Liver problems	Discharge from industrial chemical factories	0.07
OC	Trans-1,2-Dichloroethylene	0.1	Liver problems	Discharge from industrial chemical factories	0.1
OC	Dichloromethane	0.005	Liver problems; increased risk of cancer	Discharge from drug and chemical factories	Zero
OC	1,2-Dichloropropane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	Zero
OC	Di(2-ethylhexyl) adipate	0.4	Weight loss, live problems, or possible reproductive difficulties	Discharge from chemical factories	0.4
OC	Di(2-ethylhexyl) phthalate	0.006	Reproductive difficulties; liver problems; increased risk of cancer	Discharge from rubber and chemical factories	Zero
OC	Dinoseb	0.007	Reproductive difficulties	Runoff from herbicide used on soybeans and vegetables	0.007
OC	Dioxin (2,3,7,8-TCDD)	0.00000003	Reproductive difficulties; increased risk of cancer	Emissions from waste incineration and other combustion; discharge from chemical factories	Zero
OC	Diquat	0.02	Cataracts	Runoff from herbicide use	0.02
OC	Endothall	0.1	Stomach and intestinal problems	Runoff from herbicide use	0.1
OC	Endrin	0.002	Liver problems	Residue of banned insecticide	0.002
OC	Epichlorohydrin	TT[8]	Increased cancer risk, and over a long period of time, stomach problems	Discharge from industrial chemical factories; an impurity of some water treatment chemicals	Zero
OC	Ethybenzene	0.7	Liver or kidneys problems	Discharge from petroleum refineries	0.7
OC	Ethylene dibromide	0.00005	Problems with liver, stomach, reproductive system, or kidneys; increased risk of cancer	Discharge from petroleum refineries	Zero
IOC	Fluoride	4.0	Bone disease (pain and tenderness of the bones); Children may get mottled teeth	Water additive which promotes strong teeth; erosion of natural deposits, discharge from fertilizer and aluminum factories	4.0
M	*Giardia lamblia*	TT[3]	Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	Zero
OC	Glyphosate	0.7	Kidney problems; reproductive difficulties	Runoff from herbicide use	0.7
DBP	Haloacetic acids (HAA5)	0.060	Increased risk of cancer	Byproduct of drinking water disinfection	N/A[6]
OC	Heptachlor	0.0004	Liver damage; increased risk of cancer	Residue of banned termiticide	Zero
OC	Heptachlor epoxide	0.0002	Liver damage; increased risk of cancer	Breakdown of heptachlor	Zero

D Disinfectant = DL3

IOC Inorganic Chemical = DL4

OC Organic Chemical = DL4

DBP Disinfection Byproduct = DL3

M Microorganism = DL4

R Radionuclides = DL4

DL = Deficiency Level

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
M	Heterotrophic plate count (HPC)	TT[3]	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.	HPC measured a range of bacteria that are naturally present in the environment	N/A
OC	Hexachlorobenzene	0.001	Liver or kidney problems; reproductive difficulties; increased risk of cancer	Discharge from metal refineries and agricultural chemical factories	Zero
OC	Hexachlorocyclopentadiene	0.05	Kidney or stomach problems	Discharge from chemical factories	0.05
IOC	Lead	TT[7]; Action Level = 0.015	Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities; Adults: Kidney problems; high blood pressure	Corrosion of household plumbing systems; erosion of natural deposits	Zero
M	*Legionella*	TT[3]	Legionnaire's Disease, a type of pneumonia	Found naturally in water; multiples in heating systems	Zero
OC	Lindane	0.0002	Liver or kidney problems	Runoff/leaching from insecticide used on cattle, lumber, gardens	0.0002
IOC	Mercury (inorganic)	0.002	Kidney damage	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands	0.002
OC	Methoxychlor	0.04	Reproductive difficulties	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	0.04
IOC	Nitrate (Measured as Nitrogen)	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	10
IOC	Nitrite (Measured as Nitrogen)	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	1
OC	Oxamyl (Vydate)	0.2	Slight nervous system effects	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	0.2
OC	Pnetachlorophenol	0.001	Liver or kidney problems; increased cancer risk	Discharge from wood preserving factories	Zero
OC	Picloram	0.5	Liver problems	Herbicide runoff	0.5
OC	Polychlorinated biphenyls (PCBs)	0.0005	Skin changes; thymus gland problems; immune deficiencies; reproductive or nervous system difficulties; increased risk of cancer	Runoff from landfills; discharge of waste chemical	Zero

D **Disinfectant = DL3**

IOC **Inorganic Chemical = DL4**

OC **Organic Chemical = DL4**

DBP **Disinfection Byproduct = DL3**

M **Microorganism = DL4**

R **Radionuclides = DL4**

DL = Deficiency Level

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
R	Radium 226 and Radium 228 (Combined)	5 pCi/L	Increased risk of cancer	Erosion of natural deposits	Zero
IOC	Selenium	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines	0.05
OC	Simazine	0.004	Problems with blood	Herbicide runoff	0.004
OC	Styrene	0.1	Liver, kidney, or circulatory system problems	Discharge from rubber and plastic factories; leaching from landfills	0.1
OC	Tetrachloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from factories and dry cleaners	Zero
IOC	Thallium	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	0.0005
OC	Toluene	1	Nervous system, kidney, or liver problems	Discharge from petroleum factories	1
M	Total Coliforms (Including fecal coliform and *E. coli*)	5.0%[4]	Not a health threat in itself; it is used to indicate whether other potentially harmful bacteria may be present[5]	Coliforms are naturally present in the environment as well as feces; fecal coliforms and *E. coli* only come from human and animal fecal waste.	Zero
DBP	Total Trihalomethanes (TTHMs)	0.10 0.080 after 12/31/03	Liver, kidney or, central nervous system problems; increased risk of cancer	Byproduct of drinking water disinfection	N/A[6]
OC	Toxaphene	0.003	Kidney, liver, or thyroid problems; increased risk of cancer	Runoff/leaching from insecticide used on cotton and cattle	Zero
OC	2,4,5-TP (Silvex)	0.05	Liver problems	Residue of banned herbicide	0.05
OC	1,2,4-Trichlorobenzene	0.07	Changes in adrenal glands	Discharge from textile finishing factories	0.07
OC	1,1,1-Trichloroethane	0.2	Liver, nervous system, or circulatory problems	Discharge from metal degreasing sites and other factories	0.20
OC	1,1,2-Trichloroethane	0.005	Liver, kidney, or immune system problems	Discharge from industrial chemical factories	0.003
OC	Trichloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from metal degreasing sites and other factories	Zero
M	Turbidity	TT[3]	Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing micro-organisms such as viruses, parasites, and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea, a and associate headaches.	Soil runoff	N/A

D **Disinfectant = DL3**

IOC **Inorganic Chemical = DL4**

OC **Organic Chemical = DL4**

DBP **Disinfection Byproduct = DL3**

M **Microorganism = DL4**

R **Radionuclides = DL4**

DL = Deficiency Level

	Contaminant	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Exposure Above the MCL	Common Sources of Contaminant in Drinking Water	Public Health Goal
R	Uranium	30 ug/L as of 12/08/03	Increased risk of cancer, kidney toxicity	Erosion of natural deposits	Zero
OC	Vinyl chloride	0.002	Increased risk of cancer	Leaching from PVC pipes; discharge from plastic factories	Zero
M	Viruses (Enteric)	TT[3]	Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	Zero
OC	Xylenes (Total)	10	Nervous system damage	Discharge from petroleum factories; discharge from chemical factories	10

Table 24: EPA National Primary Drinking Water Standards

NOTES

1 Definitions

- Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.
- Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
- Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfects to control microbial contaminants.
- Maximum Residual Disinfectant Level – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Treatment Technique (TT) – A required process intended to reduce the level of contaminant in drinking water.

2 units are in milligrams per liter (mg/L) unless otherwise noted. Milligrams per liter are equivalent to parts per million (ppm).

3 EPA's surface water treatment rules require systems using surface water or ground water under the direct influence of surface water to (1) disinfect their water, and (2) filter their water or meet criteria for avoiding filtration so that the following contaminants are controlled at the following levels:

- *Cryptosporidium*: (as of 1/1/02 for systems serving >10,000 and 1/14/05 for systems serving <10,000) 99& removal
- *Giardia lamblia*: 99.9 percent removal/inactivation
- Viruses: 99.99% removal/inactivation
- *Legionella:* No limit, but EPA believes that if *Giardia* and viruses are removed/inactivated, *Legionella* will also be controlled.
- Turbidity: at no time can turbidity (cloudiness of water) go above 5 nephelolometric turbidity unit (NTU); systems that filter must ensure that the turbidity go no higher than 1 NTU (0.5 NTU for conventional or direct filtration) in at least 95% of the daily samples in any month. As of January 1, 2002, for systems servicing >10,000, and January 14, 2005, for systems servicing <10,0000, turbidity may never exceed 1 NTU, and must not exceed 0.3 NTU in 95% of daily samples in any month.
- HPC: No more than 500 bacterial colonies per millimeter
- Long Term 1 Enhanced Surface Water Treatment (Effective Date: January 14, 2005); Surface water systems or (GWUDI) systems serving fewer than 10,000 people must comply with the applicable Long Term 1 Enhanced Surface Water Treatment Rule provisions (e.g., turbidity standards, individual filter monitoring, *Cryptosporidium* removal requirements, updated watershed control requirements for unfiltered systems).
- Filter Backwash Recycling: The Filter Backwash Recycling Rule requires systems that recycle to return specific recycle flows through all processes of the system's existing conventional or direct filtration system or at an alternate location approved by the state.

4 No more than 5.0% samples total coliform-positive in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliform or *E. coli* if two consecutive TC-positive samples, and one is also positive for *E. coli* fecal coliforms, system has an acute MCL violation.

5 Fecal coliform and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Disease-causing microbes (pathogens) in these wastes can cause diarrhea,
cramps, nausea, headaches, or other symptoms. These pathogens may pose a special health risk for infants, young children, and people with severely comprised immune systems.

6 Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:

- Haloacetic acids: dichloracetic acid (zero); trichloroacetic acid (0.3 mg/L)
- Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 mg/L)

7 Lead and copper and regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps. For copper, the action level is 1.3 mg/L, and for lead is 0.015 mg/L.

8 Each water system must certify, in writing, to the state (using third-party or manufacturers certification) that when it uses acrylamide and/or epichlorohydrin to treat water, the combination (or product) of dose and monomer level does not exceed the levels specified, as follows: Acrylamide = 0.05% dosed at 1 mg/L (or equivalent); Epichlorohydrin = 0.01% dosed at 20 mg/L (or equivalent).

D	Disinfectant = DL3	IOC	Inorganic Chemical = DL4	OC	Organic Chemical = DL4
DBP	Disinfection Byproduct = DL3	M	Microorganism = DL4	R	Radionuclides = DL4

DL = Deficiency Level

Appendix M

EPA National Secondary Drinking Water Standards

National Secondary Drinking Water Standards are non-enforceable guidelines regulating contaminants that may cause cosmetics effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards.

Contaminant	Secondary Standard
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 (color units)
Copper	1.0 mg/L
Corrosivity	Noncorrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 Threshold Odor Number
pH	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L

Table 25: EPA National Secondary Drinking Water Standards

Projects with water that does not meet the National Secondary Drinking Water standards are considered Deficiency Level 2.

Office of Water (4606M)
EPA 816-F-03-016
www.epa.gov/safewater
June 2003

Appendix N

One-Line Listing

Project	Project Name	Tribe	Res.	Dist.	Office	Pri.	Init. DL	Final DL	Total Score	Homes	Total Contributions	Project Cost (IHS Regular)	Cumulative Cost (IHS Regular)
AK17552-5002*	Lower Kalskag In-Home Plumbing	617	227	21	31	1	5	1	88	34	3,369,350	1,500,000	1,500,000
AK13323-1101	Akhiok - Raw Water Line Replace.	501	227	20	13	2	3	3	85	36	100,000	375,000	1,875,000
AK03508-5001*	Toksook Bay - Water and Sewer	697	227	21	31	3	4	1	83	2	1,600,000	200,000	2,075,000
AK22741-1302	Ambler - Washeteria Completion	510	227	23	17	4	4	4	81	19	340,000	340,000	2,415,000
AK18624-0105	Alatna - Raw Water Main	506	227	22	27	5	4	4	80	17	0	360,000	2,775,000
AK19670-5001	Northway - Water & Sewer Up.	643	227	22	27	6	4	1	79	2	0	78,800	2,853,800
AK20708-1004	Stevens Village WTP Corros. Cont.	684	227	32	27	7	4	4	78	39	0	75,000	2,928,800
AK13325-1001	Karluk - WTP Upgrade	591	227	20	13	8	4	1	78	32	0	640,760	3,569,560
AK03486-0007	Chefornak - Wells &Pumphouse	534	227	31	31	9	4	4	77	92	0	1,223,626	4,793,186
AK20703-5001	Beaver – Adl. W/S Haul & Plmbing	521	227	32	27	10	4	3	76	6	0	344,062	5,137,248
AK24854-1001	Pilot Station Primary Ground H2O	653	227	21	31	11	4	2	76	146	0	405,395	5,542,643
AK24849-5001	Hooper Bay Blueber. Sub. Utilidor	579	227	31	31	12	4	1	75	35	2,770,000	2,025,000	7,567,643
AK03496-5001	Kwigillingok FTH New Homes	612	227	21	31	13	5	1	75	4	140,601	358,558	7,926,201
AK12291-1001	Port Graham - WTP upgrades	659	227	20	8	14	3	1	74	67	0	80,000	8,006,201
AK01003-2002	Klawock - WWTP Headwrks Up.	601	227	20	24	15	3	1	74	394	0	2,141,000	10,147,201
AK22747-2001	Kivalina - Sludge Pumper	600	227	23	17	16	4	4	73	55	0	400,000	10,547,201
AK20701-1002	Arctic Village Water Intake	516	227	32	27	17	4	4	72	49	0	200,000	10,747,201
AK13323-2001	Akhiok - Lift Station/Outfall	501	227	20	13	18	4	1	72	36	360,000	765,000	11,512,201
AK24852-2002	Mt Village - Lagoon Upgrades	626	227	31	31	19	4	4	72	213	0	154,536	11,666,737
AK17547-1001	Grayling - WTP Upgrades	574	227	21	31	20	3	1	71	72	0	430,000	12,096,737
AK23801-5001	Teller Water & Sewer Improve.	692	227	33	20	21	4	4	71	74	0	2,771,600	14,868,337
AK15441-2001	New Stuyahok lift station	634	227	20	3	22	3	1	70	100	0	850,000	15,718,337
AK20704-9001	Chalkyitsik - Landfill Facility	532	227	22	27	23	3	1	70	69	205,956	250,000	15,968,337
AK22744-1001	Deering - Water Treatment Up.	552	227	33	17	24	3	1	69	77	0	770,040	16,738,377
AK03506-1002	Platinum - Water Tank	655	227	30	3	25	3	3	69	41	0	315,100	17,053,477
AK15440-2001	Newhalen - Lift station	633	227	20	3	26	3	1	68	48	0	800,000	17,853,477
AK17543-2001	Crooked Creek - Lagoon	551	227	21	31	27	4	4	66	36	200,000	1,900,000	19,753,477
AK21722-5101	Barrow - W/S Holding Tanks	520	227	22	2	28	3	1	66	135	0	687,500	20,440,977
AK23804-1101	White Mtn. - WST	708	227	23	20	29	3	1	64	103	105,000	709,163	21,150,140
AK13327-2001	Larsen Bay - Sludge Lagoon	614	227	20	13	30	3	1	64	108	0	725,000	21,875,140
AK14374-1001	Nelson Lagoon – Line Realign	631	227	20	1	31	3	2	64	29	36,400	388,080	22,263,220
AK01001-1201	Craig - WST Improvements	550	227	20	24	32	2	1	64	124	234,000	100,000	22,363,220
AK17560-2001*	Shageluk - Sewer Lagoon	675	227	21	31	33	4	4	62	36	140,000	2,652,500	25,015,720
AK24852-1003	Mt Village- Water Source Phase 2	626	227	31	31	34	4	1	62	156	0	3,000,000	28,015,720
AK13331-2002	Port Lions - Sludge Lagoon	661	227	20	13	35	3	1	62	120	0	995,000	29,010,720
AK24852-3101	Mt Village - Main Replacement	626	227	31	31	36	3	1	62	176	0	2,935,140	31,945,860
AK20703-5002	Beaver - Plum Homes for Haul Sys	521	227	32	27	37	4	3	60	5	0	393,360	32,339,220
AK15441-1001	New Stuyahok WTP	634	227	20	3	38	4	1	60	107	325,000	3,690,000	36,029,220
AK15438-4001	Manokotak - Sewer Main Repr.	619	227	30	3	39	3	3	60	79	0	363,000	36,392,220
AK03510-5101	Tuntutuliak - Flush Tank & Haul	699	227	21	31	40	4	3	59	20	0	1,142,425	37,534,645
AK18617-2001	Nenana Sewage Treatment Plant	632	227	22	27	41	4	1	59	123	0	1,094,800	38,629,445
AK18608-9001	Hughes Landfill Closure	580	227	22	27	44	3	1	59	34	0	50,000	41,287,621
AK15450-9001	South Naknek - Solid Waste	682	227	20	3	45	3	1	59	45	0	100,000	41,387,621
AK14362-9001	Atka - Solid Waste & Burn Box	517	227	30	1	46	3	1	59	35	0	50,000	41,437,621
AK06103-3301*	Hoonah - West End Loop	578	227	20	24	47	5	1	58	4	360,000	269,430	41,707,051
AK17560-3001*	Shageluk – Indiv. Wells & Sewer	675	227	21	31	48	4	1	58	15	4,880,939	0	41,707,051
AK15440-1001	Newhalen – WTP Replace	633	227	20	3	49	4	1	58	48	0	2,230,000	43,937,051
AK00000-5901	YKHC - ARUC Startup	503	996	21	31	50	3	3	58	541	0	787,750	44,724,801
AK21727-5001*	Point Lay - Water & Sewer Service	657	227	22	2	51	5	1	57	4	527,000	0	44,724,801
AK15438-1001	Manokotak – OldVil Water Source	619	227	30	3	52	3	3	56	79	0	572,700	45,297,501
AK22742-5003*	Buckland Supplemental W/S	529	227	33	17	53	4	1	55	16	2,942,098	2,140,264	47,437,765
AK13327-2002	Larsen Bay - Pumper Truck	614	227	20	13	54	3	1	55	50	0	135,000	47,572,765
AK14379-5102	St. George - Water Distrib. System	???	227	2	1	55	3	1	54	60	0	2,186,250	49,759,015
AK18620-4001	Ruby - Community Lagoon	665	227	22	27	56	4	4	54	47	0	1,397,361	51,156,376
AK03508-1101	Toksook Bay - Back up Well	697	227	21	31	57	3	1	54	145	0	2,250,000	53,406,376
AK12295-4001	Tyonek - Vehicle Storage Building	702	227	22	29	58	2	1	54	80	0	183,040	53,589,416
AK21728-9001	Wainwright - Solid Waste	706	227	22	2	59	3	1	54	174	0	825,000	54,414,416
AK24849-2001	Hooper Bay Sewage Lagoon. Up.	579	227	31	31	60	4	1	53	284	0	7,500,000	61,914,416
AK03507-5002	Tununak - Pipe Scenario/Infeas.	700	227	31	31	61	4	1	53	93	0	8,000,000	69,914,416

Table 26: One-Line Listing

Appendix O

Communities Eligible to Receive One Point for Fluoridation Based On Size

Community	Estimated 2009 Population (AK Dept. Of Labor)
Akhiok	51
Alatna	22
Anvik	75
Atka	71
Beaver	58
Bettles	19
Birch Creek	31
Chalkyitsik	60
Chenega Bay	62
Chignik Bay	73
Chignik Lagoon	73
Chignik Lake	105
Chistochina	95
Chitina	99
Chuathbaluk	98
Circle	99
Clark's Point	61
Council	8
Dot Lake Village	37
Eagle Village	61
Egegik	73
Evansville	13
False Pass	41
Healy Lake	10
Hughes	79
Igiugig	48
Iliamna	91
Ivanof Bay	0
Karluk	38
Kasaan	56
Koyukuk	105
Larsen Bay	79
Levelock	88
Lime Village	41
Manley Hot Springs	81
Nelson Lagoon	60
Nikolski	33
Northway	76
Oscarville	100
Pedro Bay	48
Pilot Point	66
Platinum	57
Port Heiden	83
Portage Creek	5
Rampart	68
Red Devil	53
Shageluk	97
Sleetmute	106
Solomon	6
South Naknek	68
Stevens Village	102
Stony River	51
Takotna	38
Takotna	53
Tatitlek	83
Telida	11
Twin Hills	66
Ugashik	7
Ugashik	15

Table 27: Alaska Rural Housing List – Fluoridation Eligibility

Appendix P

Alaska Rural Communities with Less Than 50% of Homes Served with Piped Water/Closed Haul

Community Name	# Housing Units with Pipes or Covered Haul	Total Housing Units	% Served
Alatna	0	17	0%
Akiachak	80	184	43%
Allakaket	0	59	0%
Arctic Village	1	47	2%
Atmautluak	0	70	0%
Birch Creek	0	22	0%
Chalkyitsik	0	44	0%
Chefornak	7	80	9%
Chuathbaluk	15	45	33%
Circle	0	25	0%
Crooked Creek	1	37	3%
Diomede	2	42	5%
Eagle Village	0	33	0%
Eek	0	88	0%
Hughes	0	32	0%
Kipnuk	0	144	0%
Kivalina	0	80	0%
Kongiganak	40	100	40%
Koyukuk	0	60	0%
Lime Village	0	27	0%
Lower Kalskag	25	82	30%
Newtok	3	63	5%
Oscarville	0	16	0%
Platinum	8	19	42%
Ruby	0	78	0%
Shageluk	0	45	0%
Shishmaref	21	59	36%
Stebbins	0	129	0%
Steven's Village	1	24	4%
Stony River	0	25	0%
Takotna	7	26	27%
Teller	2	68	3%
Tuluksak	12	112	11%
Tununak	21	83	25%
Venetie	5	65	8%
Wales	4	45	9%

Table 28: Alaska Rural Communities with Less Than 50% of Homes Served with Piped Water/Closed Haul

Appendix Q

Water Systems Eligible for SDS Water Fluoridation Enhancement Point

The SDS fluoride enhancement point is awarded to fluoridating systems that meet optimal status for at least 9 months (75%) during the year. The "Months Optimal" column indicates the number of months in which optimal fluoridation[1] occurred. 2013 calendar year data was used to determine the fluoridation statuses below.

Water System Community Name	Months Optimal	SDS Point
Barrow	12	1
Bethel	12	1
Dillingham	12	1
Fort Yukon	12	1
Kotzebue	10	1
Petersburg	12	1
Sitka	12	1

Table 29: Fluoridating Water Systems Eligible for SDS Water Fluoridation Enhancement Point (1 Point)

Water System Community Name	Months Optimal	SDS Point	Reason(s) [2] Not Eligible
Alakanuk	0	0	1
Marshall	0	0	1
Nome	0	0	1, 4
Port Lions	0	0	1
Saint Paul	4	0	1
Savoonga	7	0	1
Shungnak	3	0	1
Toksook Bay	0	0	1

Table 30: Fluoridating Water Systems Not Eligible for SDS Water Fluoridation Enhancement Point (1 Point)

[1] Optimal fluoridation: the average monthly fluoride concentration falls within the recommended range of 0.7-1.7 PPM.
[2] See Table 31 for list of common reasons water systems failed to meet SDS point criteria.

Number	Reason	Description
1	Monthly Average Out of Control Range	Average monthly fluoride concentration does not fall within recommended range of 0.7-1.7 PPM.
2	Inadequate Daily Sampling	Did not perform daily sampling at least 71% of days/month or at least 20 days/month.
3	Inadequate Number of Daily Samples within the Control Range	At least 75% of daily samples did not fall within the recommended range of 0.7-1.7 PPM.
4	Did Not Fluoridate or No Record	Operator reports detailing fluoridation activity must be provided to ADEC Drinking Water Program as required by State regulation.

Table 31: Common Reasons Fluoridating Water Systems Failed to Meet SDS Point Criteria