

Engineering Program Assessment

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HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

Presentation Outline

- ◆ Purpose for the assessment
- ◆ Program staffing
- ◆ Fund sources
- ◆ Engineers' role
- ◆ Organization of engineering resources
- ◆ Feedback from external consumers

Why an Assessment?

- ◆ Program evaluation is part of ODW culture
- ◆ We recognize the importance of being proactive
- ◆ We want to know how stakeholders perceive and value our engineering program's performance
- ◆ As stewards of our resources, we want to ensure we use our program's engineering talents in the most impactful and efficient way(s) possible

Program Staffing

- ◆ The original name of the program was "Division of Public Health Engineering"
- ◆ The program included drinking water, sewage, air pollution, solid waste, and swimming pools
- ◆ Regional office technical staff consisted entirely of engineers
 - Operated under the Department of Social and Health Services
 - In 1974 we employed 13 engineers and 6 other environment/technical staff

Program Staffing (cont.)

- ◆ Program today includes 20 environmental engineers and 3 engineering supervisors deployed in regional offices and in headquarters
 - Another 57 technical staff compliment the environmental engineers

Other States' Staffing Levels

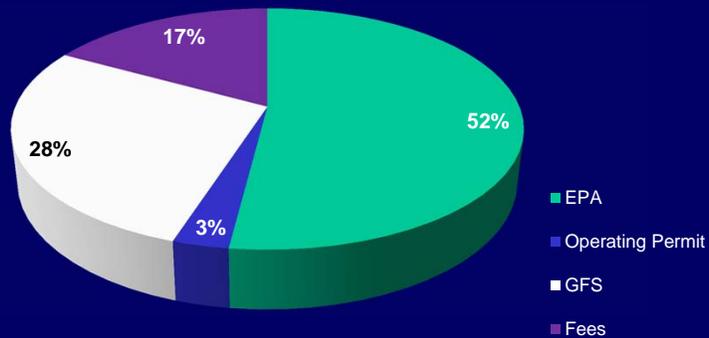
Question	WA	AK	CO	MI	MN	NC	OR	UT
Number of full-time equivalent (FTE) staff positions in your state drinking water program	105	58	72	70	104	112	42	43
Number of licensed professional engineering FTEs	23	10	18	28	21	23	12	14
% PE FTEs to Total FTEs	22%	17%	25%	40%	20%	21%	28%	33%
Number of licensed professional engineering FTEs in a Regional/District Office	19	9	5	23	11	11	4	4
Number of licensed professional engineering FTEs in Headquarters Office	4	1	13	5	10	12	8	10
Unlicensed engineers	0	5	Unk	7	2	44	Unk	1
% Total Engineer FTEs to Total FTEs	22%	26%	25%	50%	22%	60%	28%	35%

What the Numbers Show

- ◆ We are the only state that doesn't employ unlicensed engineers
- ◆ We are comparable with the percentage of PE FTEs to total FTEs for the sample set (22% WA versus 26% sample set average)
- ◆ Every state except AK has more PEs in headquarters – we are organized so that most of our engineering resources are assigned to the communities they serve

Current Funding Sources

Funding for Engineering Positions



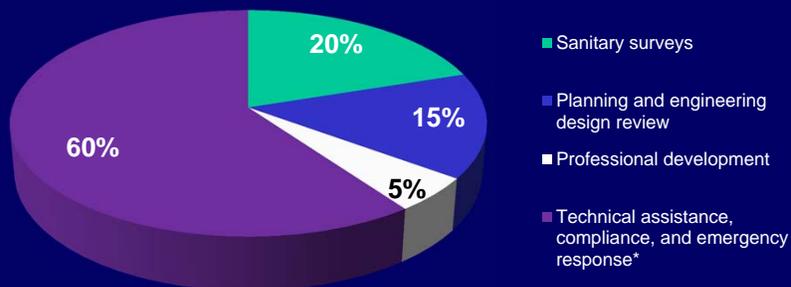
Regional Engineers' Role

Applies engineering expertise to protect public health by:

- Responding to drinking water emergencies
- Conducting sanitary surveys
- Providing technical review of water system plans and engineering design documents
- Providing technical assistance to local health jurisdictions, state and federal agencies, water system owners and operators, community officials, consulting engineers, and citizen groups
- Ensuring adequate quality and quantity of water supply
- Providing topic specialty expertise (surface water, cross-connection control, lead copper rule, State Revolving Fund program, etc.)

Regional Engineers' Time

Estimates of time spent on various tasks



Organization of Engineering Resources

- ◆ Engineering resources are deployed across the state in three regional offices and in headquarters
- ◆ Regional engineers, and their engineering supervisors, comprise about 90 percent of our engineering resources
- ◆ Regional engineers are assigned as lead to a specific territory (one or more counties)

Organization of Engineering Resources (cont.)

- ◆ **Strengths**
 - Relationships between the engineer and purveyors
 - Ownership, purpose, and connection to the work
 - Concentrates expertise and knowledge of the water systems within the assigned region
 - Supports local government's administration of its drinking water program, and by extension its overall local health and land use programs
 - Facilitates ODW management and administrative inquiries and referrals based on county of origin

Organization of Engineering Resources (cont.)

Weaknesses

- Inequitable workload
- Exacerbates succession planning
- Inhibits consistency in approach and cross learning opportunities
- Potentially limits the pool of qualified candidates

Feedback from Local Health

- ◆ 74% of respondents believe ODW engineers are important to successful implementation of their local drinking water program
- ◆ 91% believe ODW engineers are important in establishing and maintaining effective working relationships
- ◆ 96% believe ODW engineers are important to providing their staff and the public with accurate information about drinking water regulations and practices

Feedback from Consultants

- ◆ 80% of respondents believe ODW engineers are important to their success in delivering accurate, timely, and cost-efficient engineering services to their clients
- ◆ 95% believe ODW engineers are important in establishing and maintaining effective working relationships
- ◆ 96% believe ODW engineers are important to providing accurate information about ODW regulations, policies, and standards to the consultant

Feedback from Purveyors

- ◆ 82% of respondents believe ODW engineers are important to their success in delivering accurate, timely, and cost-efficient engineering services to their utility
- ◆ 80% believe ODW engineers are important in establishing and maintaining effective working relationships
- ◆ 63% believe ODW engineers are important to providing accurate information about ODW regulations, policies, and standards to the utility

Opportunities for Follow-Up

- ◆ Variability from respondents on satisfaction with level of professional judgment ODW engineers exercise
 - Purveyors and consultants split on primary purpose of ODW document review
- ◆ Variability from respondents on the territorial model for the regional engineer assignments

Questions and Comments

