



Minneapolis VA Medical Center Water Conservation & Food Waste Prevention

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Driven to DiscoverSM



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Company Background

VA



U.S. Department of Veterans Affairs
Veterans Health Administration
Minneapolis VA Health Care System

Minneapolis, MN - VAMC

- 1.5 million ft²
- 5,000 employees and volunteers
- Full health services for veterans
- 24/7 hospital operation
- Long history



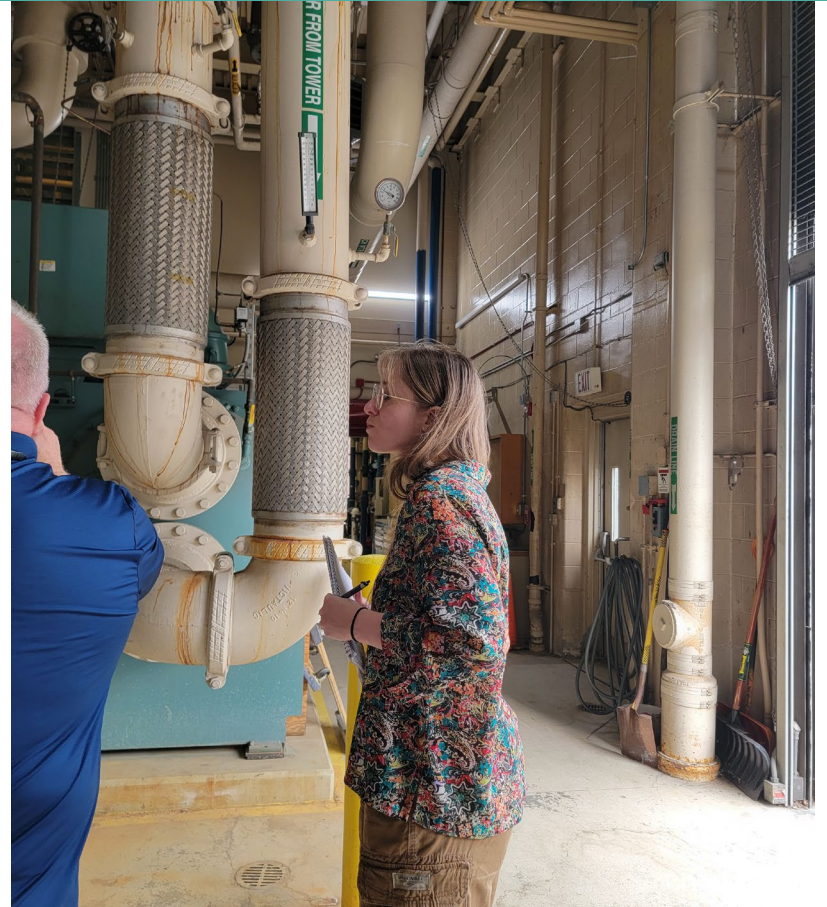
Incentives to Change

- **Duty to public & environmental health**
- **Emphasis on sustainability**
 - Practice Greenhealth Top 25
 - Circles of Excellence
- **Responsibility to cut emissions – Exec. Order 13693**

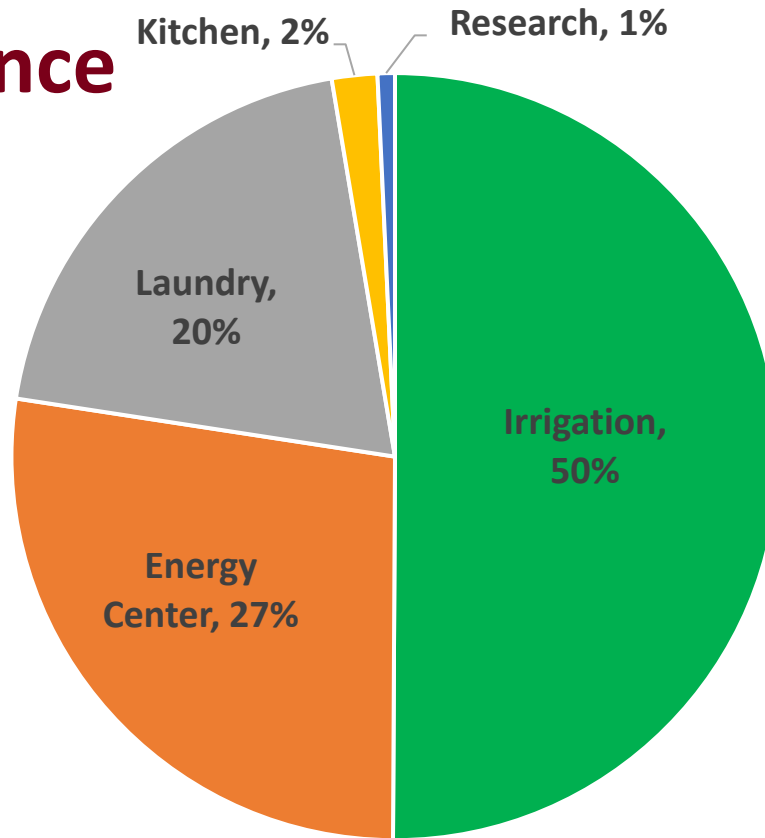


Approach

- Process water focus
- Meter readings
- Annual reports
- Equipment water consumption
- Staff input



Water Balance



Irrigation

- 11,000,000 gallons of well water in 2022
- Local aquifer source
- Irrigation site plans to find area of irrigation - 6.5 acres
- Total cost: \$1,500



https://www.mapdevelopers.com/area_finder.php

Shorten Irrigation Season

- **Current season: May → mid-October**
- **Shortened season: June → mid-September**
- **7-week reduction**
- **3,100,000 gallons saved/season**
- **\$420/yr saved**



Reduce Volume of Irrigation Water

- Current rate: 2.5 in/wk
- Recommended rate: Up to 1 in/wk
- Cycle times reduced by 60%
- 6,400,000 gallons saved/season
- \$860/yr saved



Food Waste



Recommendations

- **Implement just-in-time prep**
 - Reduce production time
 - Reduce inventory cost
 - Reduce labor
 - Reduce excess food
- **Donate all excess food**
- **Donate food waste to pig buckets**
 - Educate on source separation

Solutions

Recommendation	Annual reduction	Total cost	Annual savings	Payback period	Status
Shorten irrigation season	3,100,000 gal	None	\$420	NA	Recommended
Reduce irrigation volume	6,400,000 gal	None	\$860	NA	Recommended
Install moisture sensors	1,300,000 gal	\$2,200	\$180	12 seasons	Tentatively Recommended
Replace cooling tower auto blowdown system	330,000 gal	\$1,300	\$24,000	<1 month	Recommended
Install ozone laundry	1,600,000 gal	TBD	\$120,000	TBD	Recommended
Prevent excess food	130,000 lb	None	\$280,000	NA	Recommended
Divert food waste	160,000 lb	\$5,300	TBD	TBD	Recommended

Personal Benefits

- Making connections with professionals in my field of interest
- Asking questions
- Improving project management skills
- Aiding in sustainable thinking

