



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

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Mission

“The Whatcom Conservation District assists land managers with their conservation choices.”

Natural Resource Priorities

- **Water Quality**
 - There remains too much bacteria and nutrient pollution to surface water & groundwater. On April 1st of this year, 800 acres of shellfish harvest area in Portage Bay were opened to spring harvest. However, these acres still remain closed three months in the fall. We also receive notice that Station 4 in Drayton Harbor is threatened with a downgrade. More work needs to be done to effect the upgrade of the Portage Bay fall season and identify what is contributing to Station 4’s problems. Some drinking water wells have higher than the maximum level of nitrate. Lake Whatcom is implementing a TMDL to protect drinking water from the harmful effects of algal blooms due to excessive levels of phosphorous. The City of Lynden and Public Utility District #1 withdraw water from the Nooksack River for domestic and commercial uses. This drinking water is also at risk from upstream sources of contamination and sediment.
 - This is both a regional and local priority.
 - Data relied upon:
 - Bacteria -- Ensuring abundant, healthy shellfish for ecosystem health and for commercial, subsistence and recreational harvest consistent with ecosystem protection is Strategy No. 19 for the 2018-2022 Action Agenda for Puget Sound.
 - Nitrate – Nitrate is a concern for both drinking water supplies ([See here](#)) and Puget Sound ([See here](#)).
 - Phosphorous -- Lake Whatcom water quality has been deteriorating due to increased phosphorous inputs that are resulting in algal blooms and depleted oxygen levels ([See here](#)).
 - Other entities engaged in addressing:
 - Bacteria in surface water include Whatcom County Public Works, Health & Planning Departments; Lummi Nation & Nooksack Tribe of Indians, Washington State Departments of Agriculture, Health & Ecology, USDA Natural Resources Conservation Service ([See here](#)).
 - Nitrate pollution as part of an international transboundary nitrogen pilot includes natural resource scientists and natural resource professionals from Canada, US, the Lummi Nation and Nooksack Tribe of Indians ([See here](#)).
 - Phosphorous in Lake Whatcom include the City of Bellingham, Whatcom County and Lake Whatcom Water & Sewer District ([See here](#)).
- **Inadequate Fish Habitat**
 - Fish passage barriers, inadequate riparian areas, and inadequate instream habitat features impair the recovery of listed salmon species. The lack of prey is a limiting factor to the recovery of the Southern Resident Orca ([See here](#)).
 - This is both a regional and local priority.
 - Data relied upon includes WRIA 1 Salmon Recovery Plan ([See here](#)) and 2018-2022 Action Agenda for the Puget Sound ([See here](#)).



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

- Other entities engaged in addressing habitat include Whatcom County, Lummi Nation, Nooksack Tribe of Indians, Nooksack Salmon Enhancement Association, Whatcom Land Trust, USDA FSA and NRCS.
- **Water Quantity**
 - There is growing concern that there is too little water in the lower tributaries to the Nooksack River, Dakota, California and Terrell Creeks to meet the needs of our diverse community. Too much water is also a problem seasonally.
 - This is both a state and local priority.
 - Data relied upon includes Chapter 173-501 WAC Instream Resources Protection Program – Nooksack Water Resource Inventory Area (WRIA) ([See here](#)), proposed rule amendment ([See here](#)) and WRIA 1 Watershed Management Plan & Associated Documents ([See here](#)).
 - Other entities engaged in addressing this include the WRIA 1 Planning Unit, Whatcom County, City of Bellingham, PUD #1, Washington State Department of Ecology, Lummi Nation, and Nooksack Tribe of Indians.
- **Conserving Working Lands**
 - Well stewarded farm and forestry land provides environmental benefits in addition to food, fiber and fuel. These include aquifer recharge, stormwater retention and habitat. They also provide aesthetic and recreational values. All this supports functional watersheds and healthy communities. Low market prices and competition for farmland by other land uses make it difficult to make farming and forestry sustainable.
 - This is a national, state and local priority.
 - Data relied upon includes that from American Farmland Trust ([See here](#)), Office of Farmland Preservation ([See here](#)) and Whatcom County ([See here](#)).
 - Other entities engaged in addressing this include Whatcom County, Whatcom Land Trust, Sustainable Connection, American Farmland Trust and The Conservation Fund.

Program Areas: There are two program areas: “natural resource” programs and “district” programs. Natural resource programs are those intended to address specific, identified natural resource priorities in the district area. District programs are those supporting basic district operations, education and outreach with landowners, engagement with other processes and entities to advance the work of the district, etc. To support these program areas the District staff have been organized into five teams: Livestock, Habitat, Engineering, Research, Education & Outreach and Administration.

Natural Resource Priority Program Area: Water Quality

Goals:

- Open all shellfish harvest areas impaired by freshwater bacteria pollution to unrestricted harvest.
- Reduce reactive nitrogen (N^r) pollution in surface and groundwater to below water quality standards.
- Achieve the phosphorous TMDL limit set for Lake Whatcom.
- Protect and restore upstream sources of drinking water.



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

Natural Resource Measurable Result Objectives:

- Our planners, engineer and educators will contribute to the success of our local PIC program so that 70% of freshwater sites (excluding those at international border) sampled in the fiscal year will meet the water quality standard for fecal coliform bacteria.
- The development and implementation of nutrient management plans will reduce the number of wells showing nitrate levels at or above the drinking water standard and reduce the amount nutrients entering Bellingham Bay via the Nooksack River and its tributaries.
- By assisting landowner install advanced stormwater projects through the HIP program the amount of phosphorous entering Lake Whatcom by 2.5 lbs. per year.
- Partner with the City of Lynden to monitor water quality and implement an outreach program for city residents. Also design a stormwater management plan for the Northwest Washington Fairgrounds that will treat and infiltrate stormwater.

Programmatic Measurable Result Objectives:

- Commercial Livestock Operations:
 - 25 Technical Assistance and Assessments completed;
 - 16 Plans;
 - 20 Designs;
 - 15 Plans Implemented or Projects Installed; and
 - 10 Cost share Projects Facilitated.
- Non-commercial Livestock Operations:
 - 50 Technical Assistance and Assessments completed;
 - 40 Plans;
 - 12 Designs;
 - 20 Plans Implemented or Projects Installed; and
 - 7 Cost share Projects Facilitated.
- Complete 6 Target HIP projects.
- Research and Effectiveness Monitoring:
 - Partner and assist Nooksack-Fraser Transboundary Nitrogen Project;
 - Continue monitoring and reporting on four Edge of Field monitoring sites to assist in BMP understanding and implementation effectiveness;
 - Continue instream monitoring of pollutants (i.e., nitrate, E. coli, total suspended solids, etc.) to understand trends and concentration of in-stream pollutants;
 - Conduct and validate microbial source tracking (MST-DNA) methodologies as a tool to identify pollution sources for technical assistance;
 - Continue to improve the Manure Spreading Advisory including installation of a soil moisture monitoring network;
 - Continue work with WSU on climate and precipitation modeling for assessment of future weather patterns and BMP effectiveness;
 - Continue with County-wide water quality data analysis and reporting to partners and landowners; and



FY2020 (7/1/19 – 6/30/20) Annual Work Plan

Whatcom Conservation District

- Complete an approved stormwater management design for the Northwest Washington Fair and Event Center to address suspected conveyances of pollution and to demonstrate treatment techniques to the public.

Funding Source(s): Whatcom County, Washington State Department of Health, Washington State Conservation Commission, City of Bellingham, EPA

WATER QUALITY	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Livestock Sources Technical Assistance				
Provide Technical Assistance	On going	Livestock	79	\$ 32,227
Conduct Risk Assessments	On going	Livestock	97	\$ 29,318
Develop/Update Conservation Plans	On going	Livestock	306	\$ 81,292
Implement Conservation Plans	On going	Livestock	43	\$ 10,770
Cooperator Follow-up & Adaptive Management	On going	Livestock	41	\$ 10,794
Livestock Sources Financial Assistance				
NRCS Programs Implementation	On going	Engineering	113	\$ 67,347
Structural Practice Planning & Implementation	On going	Engineering	97	\$ 42,119
Advanced Waste Treatment Practices (RCPP)	On going	Engineering	23	\$ 13,469
Implement Cost-share Program	On going	Livestock & Engineering	5	\$ 1,430
Complete Cultural Resource Investigations	On going	Habitat	23	\$ 9,191
Research, & Effectiveness Monitoring				
Edge of Field Program	On going	Research	191	\$ 57,025
ZAP's Project	On going	Research	77	\$ 27,224
Water Quality Data Coordination	On going	Research	223	\$ 81,371
Discovery Farms Program	On going	Research	45	\$ 18,860
Coordinate research, monitoring, and modeling projects and activities	On going	Research	43	\$ 18,276
CIG -Manure Spreading Advisory	On going	Research	11	\$ 5,646
Other Stormwater Projects				
Lake Whatcom HIP Program	On going	Education & Habitat	320	\$ 119,267
City of Lynden	On going	Education	90	\$ 22,151
Design stormwater management facilities for the Fairgrounds	Summer/Fall	Ed, Engineering, Habitat	27	\$ 11,550
Non-livestock Conservation Practice Planning and Implementation	On going	Livestock & Engineering	5	\$ 2,694
General				
Work with other Agencies & Stakeholders	On going	Livestock & Engineering	56	\$ 20,148



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

Manage databases	On going	Corina	11	\$ 3,722
Map/Maintain GIS Layers	On going	Andrew	11	\$ 4,846
TOTALS:			1933	\$ 690,735

Natural Resource Priority Program Area: Habitat

Goals:

- Improve salmonid habitat by restoring or enhancing riparian areas along lowland streams.
- Improve salmonid habitat by enhancing channel complexity and instream fish habitat in Bertrand Creek, Fishtrap Creek and other priority habitat areas.
- Restore access to historic habitat by removing fish passage barriers.
- Restore access to historic habitat by restoring lower Nooksack River floodplain connections where possible without affecting the agricultural base.
- Protect migrating juvenile fish by providing producers with resources to secure and use fish friendly pump intakes.

Natural Resource Measurable Result Objectives:

- 3 miles and 65 acres of new riparian buffers installed.
- 4 barriers to fish passage removed
- 22 miles of fish habitat opened
- 3 instream wood habitat structures installed

Programmatic Measurable Result Objectives:

- 50 landowners contacted
- 25 plans written
- 24 projects installed
- 110 projects maintained

Funding Source(s): Washington State Conservation Commission, Whatcom County and USDA NRCS and FSA

HABITAT ENHANCEMENT	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Conservation Reserve Enhancement Program				
Plan and contract new projects and cooperators	Winter/Spring	Habitat	189	\$ 82,647
Plan and contract re-enrollments	Winter/Spring	Habitat	45	\$ 18,826
Develop and implement project	Winter/Spring	Habitat	144	\$ 62,798
Monitor and maintain projects	Summer/Fall	Habitat	47	\$ 21,160
Administer CREP cost-share/maintenance reimbursements	On going	Habitat	11	\$ 4,595



FY2020 (7/1/19 – 6/30/20) Annual Work Plan

Whatcom Conservation District

NRCS Funded Habitat Projects

Fish Passage Barrier Removal	On going	Frank	45	\$	22,475
Riparian Restoration	On going	Frank	11	\$	5,619
Instream habitat	On going	Frank	0	\$	-

Other Habitat Projects

Fishtrap Creek habitat assessment and improvements	Spring-Fall	Frank	0	\$	-
Nooksack River fish screening	On going	Frank	0	\$	-
Rock dam removal	On going	Frank	0	\$	-

General

Work with other Agencies & Stakeholders	On going	Frank	27	\$	13,076
Manage databases	On going	Wayne/Andrew	34	\$	14,036
Map/Maintain GIS Layers	On going	Andrew	14	\$	5,815

TOTALS: 567 \$ 251,047

Natural Resource Priority Program Area: Water Quantity

Goals:

- Better understand water availability and use in rural Whatcom County to better inform land use and impact mitigation project decisions.
- Raise individual landowner awareness of the importance of and their role in conserving water to the benefit of the entire community.
- Support individual landowners, special districts and municipalities in addressing their water quantity concerns (too much/too little).

Natural Resource Measurable Result Objectives:

- Whatcom Water Alliance members report Summer water use decrease from 2019.
- Whatcom Water Alliance members report Equivalent Residential Unit (ERU) decrease from 2019.
- Implementation of agricultural irrigation and water use efficiencies and practices.

Programmatic Measurable Result Objectives:

- Complete an inventory of current water use by land use type and water conservation/irrigation practices used in Whatcom County. Identification of barriers to efficient water use and adoption of irrigation efficiencies and practices.
- Assist 5 landowners install and use soil moisture meters to improve landowner knowledge of soil moisture throughout the year and better schedule irrigation water use during the growing season.
- Provide technical planning and assistance to 5 landowners for adoption and implementation of irrigation efficiencies and practices.
- Outline the framework for a successful Agricultural Water Use Efficiencies and Conservation program in Whatcom County between Whatcom CD and local partners.
- Whatcom Water Alliance (WWA) or Residential Water Use efficiency work:
 - Develop program and implementation plan for WWA for 2021; and
 - Develop school-based curriculum on Water use efficiency using the Whatcom Explorer Mobile Watershed.



FY2020 (7/1/19 – 6/30/20) Annual Work Plan

Whatcom Conservation District

Funding Source(s): Washington Conservation Commission, Whatcom County, and City of Lynden (Whatcom Water Alliance)

WATER QUANTITY	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Develop Water Use Efficiencies & Conservation Programs				
Agriculture			0	\$ -
Rural & Commercial			0	\$ -
Address Flooding & Drainage Problems				
Flood Protection Projects (Assist Whatcom County Public Works)	On going	Habitat	20	\$ 10,114
Drainage Enhancement Projects (Assist DIDs & WIDs)	On going	Habitat	14	\$ 6,588
Other Water Quality Projects				
Irrigation Water Management	On going		0	\$ -
Water Conservation	On going		0	\$ -
Water Development	On going		0	\$ -
General				
Work with other Agencies & Stakeholders	On going	George/Frank	7	\$ 3,751
Manage databases		Andrew	2	\$ 969
Map/Maintain GIS Layers		Andrew	2	\$ 969
TOTALS:			45	\$ 22,391

Natural Resource Priority Program Area: Conserving Working Lands

Goals:

- Whatcom County residents will have a better appreciation for the value of natural resource-based industries such that they support the protection of working lands.
- Farmers, foresters and ranchers will increasingly exhibit good stewardship in protecting and enhancing water quality, quantity and habitat.
- Farmers, foresters and ranchers will be rewarded for delivering environmental services to their community.
- Working lands base will be protected from conversion to other uses.

Natural Resource Measurable Result Objectives:

- 500 acres protected through purchase of development rights.
- Create of a Conservation Stewardship Certification program to demonstrate positive steps farmers are taking to protect and enhance environmental values.
- Advance the Whatcom County Ag-Watershed Pilot Project with regard to establishing an environmental services marketplace.



FY2020 (7/1/19 – 6/30/20) Annual Work Plan

Whatcom Conservation District

Programmatic Measurable Result Objective:

- Provide 5 Stewardship plans to landowners participating in the County's RCPP.
- Attend 10 Ag Advisory and Purchase of Development Rights Committee meetings.
- Complete 10 individual home risk assessments.
- Give 2 presentations to communities on fire preparedness and two table displays at community events.
- Assist in one chipping event to reduce fuels.

Funding Source(s): Washington Conservation Commission, Russel Family Foundation & Whatcom County

CONSERVING WORKING LANDS	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Assist farmers access equipment				
Manure Spreader	Spring/Summer	Livestock Team	0	\$ -
Poultry processing	On going	Livestock Team	0	\$ -
Support local initiatives				
Attend County Ag Advisory & PDR Committees	On going	George/Larry	23	\$ 13,138
Conservation Stewardship Program to give recognition for good stewardship	On going	George	16	\$ 8,500
Environmental marketplace to add to the farmers bottom line	On going	George	11	\$ 6,569
Become more resilient, adapt or mitigate harmful effects of climate change	On going	Team Leaders	0	\$ -
Reduce risk of loss to fire	On going	Edu & Outreach	171	\$ 59,546
TOTALS:			221	\$ 87,753

District Program Area: Education and Outreach

Goals:

- Whatcom County residents will have an ecological understanding and place-based connection to the land, resources and economy promoting responsible stewardship and sustainable land management.
- Farmers, producers, and landowners exhibit good stewardship in protecting and enhancing water quality, water quantity and wildlife habitat.
- Whatcom Conservation District is vital part of community interaction; seen as trusted advisors, with a depth of understanding in both the regulatory framework and land management practices.
- All Whatcom County residents and elected officials value natural resource-based industries such that they support the protection of working lands and their land managers.



FY2020 (7/1/19 – 6/30/20) Annual Work Plan

Whatcom Conservation District

Programmatic Measurable Result Objectives:

- Enroll 80 new voluntary technical assistance contacts to our non-dairy farm planning team.
- Enroll 30 new voluntary technical assistance contacts to our CREP team.
- Increase website traffic 10,000 hits above last year.
- Increase number of e-new subscribers (200 per year).
- Whatcom Explorer Watershed Education (20 schools, 55 teachers, 1,500 students/year).
- Annual newsletter (Reaching 4,000+).
- Monthly livestock specific postcards (300 per month).
- Monthly e-news (Reaching 1000 people/month).
- 7 speaker series events (Reaching 150 people).
- Annual Small Farm Expo (Reaching 500 people).
- Annual Native Plant Sale (Reaching 800 people).
- Annual Manure Nutrient Management Training (Reaching 100 people).
- Annual Run with the Chums 5k Fun Run/Walk (reaching 250 people).
- Manure Matters campaign to increase public appreciation of manure use and landowner implementation of BMPs.
- Installation of conservation practice signs on agricultural fields around county (i.e., Conservation Cover, Cover Crops, etc.).
- Social Media engagement (increase by 10% over previous year).
- Citizen Science Volunteer Program (5 volunteers per year).
- Attend 20 other outreach events in the community (reaching 2000 people/ year).

Funding Source(s): Washington Conservation Commission, Whatcom County, City of Lynden, Washington State Department of Agriculture, Tenmile Clean Water Project and Whatcom Community Foundation

<i>PUBLIC EDUCATION & OUTREACH</i>	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Outreach				
Outreach to Community so that it values and supports agriculture, forestry and District programs	On going	Aneka	34	\$ 6,207.30
Outreach to landowners and occupiers so that they exhibit good conservation stewardship	On going	Aneka	79	\$ 25,518
Social Marketing Initiatives				
Survey Landowners/Community as to awareness and needs	On going	Education & Coordinators	0	
Publish Newsletters/flyers/articles/notices	Annually	Education	38	\$ 12,883



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

Maintain web content, social media presence & information videos	On going	Education & Coordinators	45	\$ 17,388
Conducting Events & Workshops				
Run with the Chums, Washington On Water, Earth Day, Sea Feast etc.	On going	Education	36	\$ 12,693
Livestock stewardship workshops (Nutrient Management Trainings, Small Farm Expo, Speaker Series, etc.)	On going	Education & Livestock	126	\$ 45,045
Plant Sale	Jan-Mar 2020	Habitat	59	\$ 21,550
Engaging Educational Community				
Higher Education Opportunities (guest lectures, tours, Internships, Capstone, etc.)	On going	Education/Research	16	\$ 7,086
Youth Education (K-12 watershed education, Youth Fair, FFA, 4H, etc.)	On going	Education	45	\$ 11,035
General				
Work with other Agencies & Stakeholders	On going	Education/Research	38	\$ 13,602
Manage databases	On going	Andrew	2	\$ 969
Map/Maintain GIS Layers	On going	Andrew	2	\$ 969
TOTALS:			520	\$ 174,945

District Program Area: Operations & Administration

Goals: The District will be recognized as:

- An “honest broker” who is accepted by all sides as impartial.
- A “trusted messenger” by our Community.
- A leader in anticipating and fulfilling the conservation needs of Whatcom County.
- Efficient in applying taxpayer dollars to effective conservation programs.

Programmatic Measurable Result Objectives:

- Introduce WCD to 10 key stakeholder audiences in the community.
- Survey the key stakeholder audiences for their perspective on the District’s Long-Range Program of Work (LRPoW).
- Develop a revised LRPoW from the comments received.
- Hold at least three public hearings in the Community to receive input on the Draft LRPoW.
- Complete updates of the District’s:
 - personnel manual.
 - operational policies.
 - compensation package.



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

- Complete analysis of the District's funding model and alternatives.

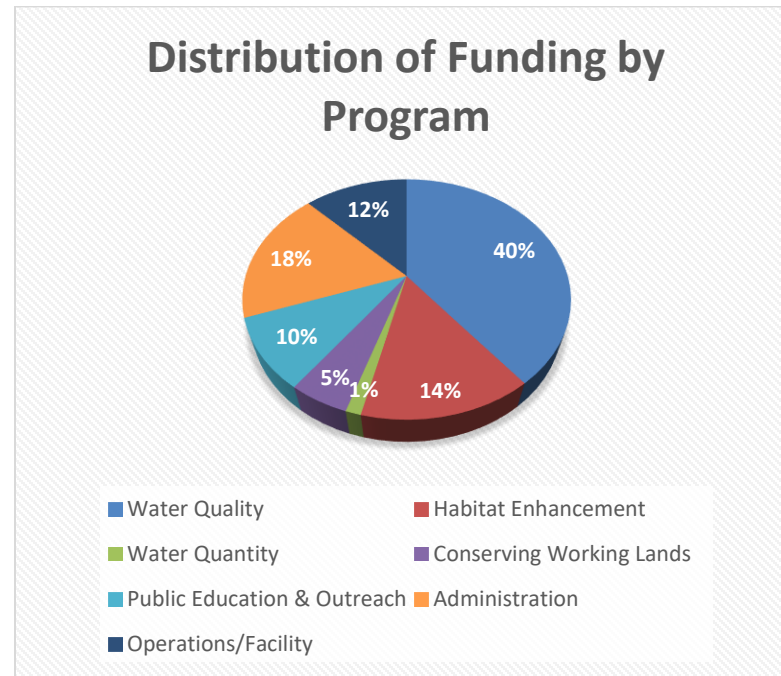
Funding Source(s): Washington State Conservation Commission & District Savings

DISTRICT OPERATIONS	Target Dates	Team/Person Responsible	Time (Days) Required	Estimated Funding
Special Initiatives				
Revise the Long-Range Program including showing the relationships between the application of resources to activities, their outputs and outcomes	Jul - Sep	Board & E.D.	68	\$ 39,415
Review/update District policies, personnel manual, employee compensation package and funding model.	Jul - Dec	Board & E.D.	45	\$ 26,276
External				
General Technical Assistance to anyone not in specific program	On going	All Staff	27	\$ 10,519
Work with other Agencies & Stakeholders		George	23	\$ 13,138
Support Commission Projects/Programs		Dawn/Nichole/Andrew	63	28,785
Internal				
Administer Programs/Grants	On going	Management Team	315	\$ 134,461
Provide the professional development, training, equipment and support to District staff necessary to successfully accomplish their respective program responsibilities	On going	E.D. & Team Coordinators	79	\$ 30,090
Run an efficient, economical election process	Jan - March	Dawn	34	\$ 12,904
Manage databases	On going	Andrew	23	\$ 9,691
Maintain Communications/Network/Computer systems	On going	Andrew	23	\$ 9,691
TOTAL:			698	\$ 314,970



FY2020 (7/1/19 – 6/30/20) Annual Work Plan Whatcom Conservation District

Fiscal Year 2020 Budget



FY 2020 All Programs & Operations

	Full-time Equivalents	Estimated Funding
Water Quality	8.6	\$ 690,735
Habitat Enhancement	2.5	\$ 251,047
Water Quantity	0.2	\$ 22,391
Conserving Working Lands	1.0	\$ 87,753
Public Education & Outreach	2.3	\$ 174,945
Administration	3.1	\$ 314,970
TOTAL:	18	\$ 1,541,841
Operations/Facility - 14%		\$ 215,858
		\$ 1,757,699