

Oakland County Department of Information Technology Project Scope and Approach

Project Name: Public Health Interactive Maps

Project ID: D99162GS

Leadership Group: Finance and Administration			
Department: Health and Human Services		Division: Health	
Project Sponsor: Leigh-Anne Stafford	Date Requested: 5/21/18	PM Customer No. 162	
Request Type: <u><i>New Development</i></u> Enhancement Customer Support Planned System Maintenance or Upgrade			
IT Team Name: Assessing and Taxation		IT Team No: 9	
Project Manager/Leader: Scott Kaiser			
Account Number: 96842	Account Description: Health Administration		Customer Name: Health
Grant Funded? Yes <u>No</u>		Mandate? Yes <u>No</u>	
		Mandate Source:	

Project Goal

To allow the public access to Health Division services, community resources, and data through interactive GIS maps so that the information is efficiently and clearly disseminated in an easy to use format.

Business Objective

Enhance the way that the Health Division visually provides information to the public using GIS maps and story boards.

Major Deliverables

- Detailed Project Plan
- Application and/or System Requirements
- End User Hardware and Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan
- Interactive Maps, such as:
 - Access to Narcan (internal, emergency response, and public use maps)
 - Recovery success story w/ alternative treatment
 - Narcan training – who and how to administer (story map)
 - Drug Court Cases (heat map)
 - ECHO Food Policy Council and Physical Activity (story map)
- Training/User Manual(s)
- Application Code
- Service Level Agreement
- Disaster Recovery Toolkit

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- Service Center Knowledge Documents

Approach

- Develop Detailed Project Plan
- Review current business process and conduct needs assessment with customer, ensuring current manual processes are refined and automated.
- Document system requirements
- Determine and document system architecture and diagram
- Assess User Hardware and Software Requirements
- Conduct Tech Review
- Develop Implementation Plan
- Develop new system
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
- Release new system into production

Research & Analysis

Gartner Research Recommendation

Research Conducted – Nothing Found.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users: In 2017, 443,407 people came to the <https://www.oakgov.com/health> (and sub-pages) website to receive information. This number includes repeat visitors.

Divisions: Health Division

Leadership Groups: Finance and Administration

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Risk

Business Environment Medium - Project will require some changes to existing business processes.

Technical Environment Low - Proven and previously implemented technologies.

Assumptions

Staffing IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing: additional staffing will be available as follows:

<u>Role</u>	<u>Name</u>	<u>Hours per Day</u>
Project Sponsor:	Leigh-Anne Stafford	As Needed

Facilities

- None

Technical

- None

Funding

- Information Technology

Other

- N/A

Priority

- TBD

Constraints

- N/A

Exclusions

- N/A

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: 365
Total Estimated Technical Systems	Hours:
Total Estimated CLEMIS	Hours:
Total Estimated Internal Services	Hours:
IT Application Services Division Manager Approval:	Date:
IT Technical Systems Division Manager Approval:	Date:
IT CLEMIS Division Manager Approval:	Date:
IT Internal Services Division Manager Approval:	Date:
IT Management Approval:	
Approved: Yes No	Date:
Reason:	
Project Sponsor Approval:	
Title:	Date:

PROJECT SUMMARY

Authorized Development (see above)	Hours: 365
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 365 Cost: \$60,225

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PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

Public Health Interactive Maps - Size Estimate (+/- 10% to 50%)

1	Type	ID	Task Name	Estimated	Estimate Notes
2				Hours	
3	3	000000	PROJECT MANAGEMENT	90	
4	Phase	200000	DEFINE BUSINESS REQUIREMENTS	65	
5	Phase	300000	DESIGN SYSTEM ARCHITECTURE	25	
6	Phase	500000	DEVELOP APPLICATION	130	
7	Phase	600000	IMPLEMENTATION PHASE	50	
8	Phase	080000	POST IMPLEMENTATION SUPPORT	5	
9				365	

Oakland County -- Public Health Interactive Maps

Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	2,500	2,500	2,500	2,500	2,500	2,500	15,000
Cost Avoidance Subtotal:	7,719	7,873	8,031	8,191	8,355	8,522	48,692
Costs:							
Development Services Subtotal:	33,083	20,105	5,150	5,253	5,358	5,465	74,414
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal:	0	0	0	0	0	0	0
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	10,219	10,373	10,531	10,691	10,855	11,022	63,692
Annual Total Costs	33,083	20,105	5,150	5,253	5,358	5,465	74,414
Annual Return on Investment	(22,864)	(9,732)	5,381	5,438	5,497	5,557	(10,722)
Annual Costs/Savings Ratio	323.74%	193.82%	48.90%	49.13%	49.36%	49.58%	
Project Cumulative Statistics:							
Cumulative Total Savings	10,219	20,592	31,123	41,815	52,670	63,692	63,692
Cumulative Total Costs	33,083	53,188	58,338	63,591	68,949	74,414	74,414
Cumulative Return on Investment	(22,864)	(32,595)	(27,215)	(21,776)	(16,279)	(10,722)	(10,722)
Cumulative Cost/Savings Ratio	323.74%	258.29%	187.44%	152.08%	130.91%	116.83%	116.83%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

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Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Provide visual display using maps and story boards to allow the public an easier way to get information.	Intangible Benefit					0	
Health Division are learning the GIS Online capabilities but are not as well versed as IT staff. This will expedite the maps that are available to public and allow the Health Division to maintain the products created.	Cost Avoidance		HR	200	27	5,306	1.020
Creates a central database of information for community resources that can be accessed by various units within the Health Division and avoid duplication of creating databases with the same resources.	Cost Avoidance		HR	100	24	2,413	1.020
Can reduce the amount of paper printed by providing on-line solutions.	Tangible Benefit	20221-1060201-133150	ANN	1	2,500	2,500	
						0	
						0	
						0	

Oakland County -- Public Health Interactive Maps

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions						
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6	
Provide visual display using maps and story boards to allow the public an easier way to get information.	Intangible Benefit													
Health Division are learning the GIS Online capabilities but are not as well versed as IT staff. This will expedite the maps that are available to public and allow the Health Division to maintain the products created.	Cost Avoidance	X	X	X	X	X	X	5,306.00	5,412.12	5,520.36	5,630.77	5,743.39	5,858	
Creates a central database of information for community resources that can be accessed by various units within the Health Division and avoid duplication of creating databases with the same resources.	Cost Avoidance	X	X	X	X	X	X	2,413.00	2,461.26	2,510.49	2,560.69	2,611.91	2,664	
Can reduce the amount of paper printed by providing on-line solutions.	Tangible Benefit	X	X	X	X	X	X	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500	

Oakland County -- Public Health Interactive Maps

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Can reduce the amount of paper printed by providing on-line solutions.	2,500	2,500	2,500	2,500	2,500	2,500	15,000
<i>Tangible Benefits Subtotal:</i>	2,500	2,500	2,500	2,500	2,500	2,500	15,000
Cost Avoidance:							
Health Division are learning the GIS Online capabilities but are not as well versed as IT staff. This will expedite the maps that are available to public and allow the Health Division to maintain the products created.	5,306	5,412	5,520	5,631	5,743	5,858	33,471
Creates a central database of information for community resources that can be accessed by various units within the Health Division and avoid duplication of creating databases with the same resources.	2,413	2,461	2,510	2,561	2,612	2,664	15,221
<i>Cost Avoidance Subtotal:</i>	7,719	7,873	8,031	8,191	8,355	8,522	48,692
Intangible Benefit:							
Provide visual display using maps and story boards to allow the public an easier way to get information.							
Savings Total:	10,219	10,373	10,531	10,691	10,855	11,022	63,692

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?							
								Y1	Y2	Y3	Y4	Y5	Y6		
IT Hours - New Development	Development Svcs		HR	365	165	60,225		x	x						
IT Hours - System Maintenance	Development Svcs		HR	10	165	1,650	1.020	x	x	x	x	x	x		
IT Hours - Customer Support	Development Svcs		HR	10	165	1,650	1.020	x	x	x	x	x	x		
IT Hours - Planned Maintenance	Development Svcs		HR	10	165	1,650	1.020	x	x	x	x	x	x		
User Hours - New Development	Development Svcs					0									
User Hours - PTNE/OT	Development Svcs					0									
Contractor Professional Services	Development Svcs					0									
PC System - Acquisition	Hardware				814	0									
PC System - Maintenance	Hardware				2,304	0									
Notebook - Acquisition	Hardware				1,223	0									
Notebook - Maintenance	Hardware				2,372	0									
Tablet Notebook - Acquisition	Hardware				2,012	0									
Tablet Notebook - Maintenance	Hardware					0									
Laserprinter - Acquisition	Hardware				1,432	0									
Laserprinter - Maintenance	Hardware				1,104	0									
Image Workstations - Acquisition	Hardware					0									
Image Workstations - Maintenance	Hardware				3,496	0									
PC Maintenance User Owned	Hardware				2,304	0									
Printer Maintenance User Owned	Hardware				1,072	0									
File Space (100GB)	Hardware		ANN		173	0									
Internet Bandwidth per MB	Hardware		ANN		750	0									
Package Software - Acquisition	Software					0									
Package Software - Maintenance	Software					0									
Business Objects Access	Software					0									
Term Emulation SFTW-Acquisition	Software					0									
Term Emulation SFTW-Maintenance	Software					0									
Server - Acquisition/Upgrade	Infrastructure				8,000	0									
Server - Maintenance	Infrastructure				360	0									
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0									
Server Sftwre - Maintenance	Infrastructure					0									
Server Rack Mount	Infrastructure				400	0									
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure				21,372	0									
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,432	0									

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Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?						
								Y1	Y2	Y3	Y4	Y5	Y6	
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				24,533	0								
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				20,759	0								
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				16,985	0								
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				4,218	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				6,398	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				5,414	0								
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				4,429	0								
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				1,100	0								
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0								

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Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?							
								Y1	Y2	Y3	Y4	Y5	Y6		
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0									
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				13,180	0									
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0									
SSL Certificate	Infrastructure				845	0									
Internet Access	Infrastructure				180	0									
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0									
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN		415	0									
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure		ANN		930	0									
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure		ANN		2,395	0									
Database SQL Maint Server	Infrastructure		ANN		834	0									
Database SQL Server Physical	Infrastructure		ANN		19,158	0									
DB Maintenance (Annual Cycle \$610)	Infrastructure		ANN		610	0									
DB Maintenance (Semi-Annual Cycle \$1220)	Infrastructure		ANN		1,220	0									
DB Maintenance (Semi-Annual Cycle \$2440)	Infrastructure		ANN		2,440	0									
Dedicated Virtual Server	Infrastructure		ANN		4,150	0									
DB Instance Setup	Infrastructure				976	0									
DBA MS SQL Database Creation on Existing Instance	Infrastructure				366	0									
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601 On Premise Physical Server = N/A	Infrastructure		ANN			0									

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?							
								Y1	Y2	Y3	Y4	Y5	Y6		
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$9,288	Infrastructure		ANN			0									
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$9,751	Infrastructure		ANN			0									
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$3,167 On Premise Physical Server = \$10,446	Infrastructure		ANN			0									
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure		ANN			0									
Project Staff Training	Training					0									
User Training	Training					0									

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	30,112.50	15,056.25				
IT Hours - System Maintenance	Development Svcs	990.00	1,683.00	1,716.66	1,750.99	1,786.01	1,821.73
IT Hours - Customer Support	Development Svcs	990.00	1,683.00	1,716.66	1,750.99	1,786.01	1,821.73
IT Hours - Planned Maintenance	Development Svcs	990.00	1,683.00	1,716.66	1,750.99	1,786.01	1,821.73
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware						
Laserprinter - Maintenance	Hardware						
Image Workstations - Acquisition	Hardware						
Image Workstations - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Internet Bandwidth per MB	Hardware						
Package Software - Acquisition	Software						
Package Software - Maintenance	Software						
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Server - Acquisition/Upgrade	Infrastructure						
Server - Maintenance	Infrastructure						
Server Sftwre - Acquisition/Upgrade	Infrastructure						
Server Sftwre - Maintenance	Infrastructure						
Server Rack Mount	Infrastructure						
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure						
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure						
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure						
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure						
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure						
Database SQL Maint Server	Infrastructure						
Database SQL Server Physical	Infrastructure						
DB Maintenance (Annual Cycle \$610)	Infrastructure						
DB Maintenance (Semi-Annual Cycle \$1220)	Infrastructure						
DB Maintenance (Semi-Annual Cycle \$2440)	Infrastructure						
Dedicated Virtual Server	Infrastructure						
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on Existing Instance	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$601 On Premise Physical Server = N/A	Infrastructure						

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$951 On Premise Physical Server = \$9,288	Infrastructure						
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$1,702 On Premise Physical Server = \$9,751	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$3,167 On Premise Physical Server = \$10,446	Infrastructure						
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = \$7,564 On Premise Physical Server = \$12,906	Infrastructure						
Project Staff Training	Training						
User Training	Training						

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Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	30,113	15,056					45,169
IT Hours - System Maintenance	990	1,683	1,717	1,751	1,786	1,822	9,748
IT Hours - Customer Support	990	1,683	1,717	1,751	1,786	1,822	9,748
IT Hours - Planned Maintenance	990	1,683	1,717	1,751	1,786	1,822	9,748
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
<i>Development Services Subtotal:</i>	33,083	20,105	5,150	5,253	5,358	5,465	74,414
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
<i>Software Subtotal:</i>							
Infrastructure:							
<i>Infrastructure Subtotal:</i>							
Training:							
<i>Training Subtotal:</i>							
Other:							
<i>Other Subtotal:</i>							
Costs Total:	33,083	20,105	5,150	5,253	5,358	5,465	74,414

