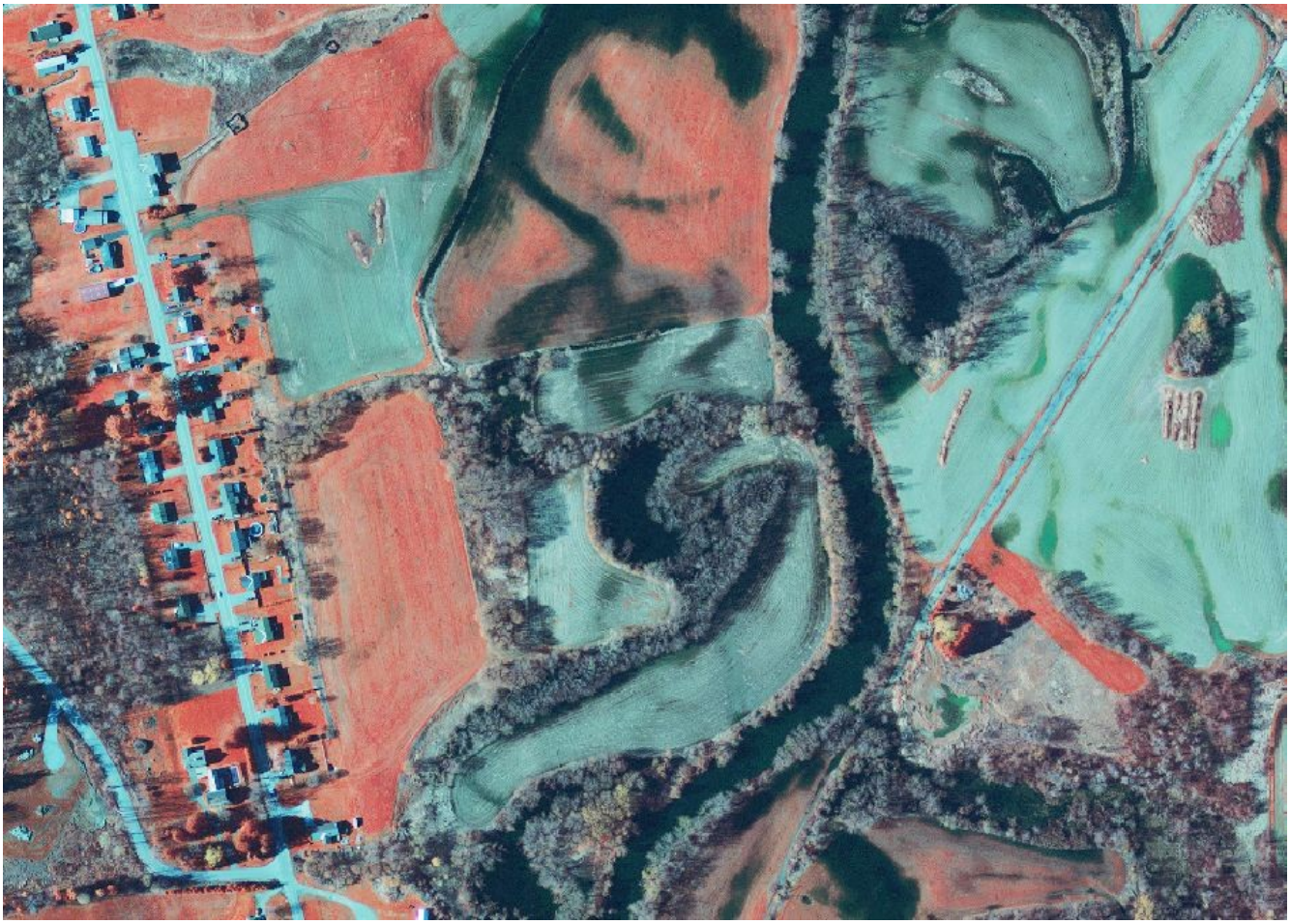
2013 Annual Report



Vermont Center for Geographic Information

VCGI INC.

Vermont GIS 2013: A Yearly Status Report

Annual Report of the Vermont Center
For Geographic Information, Inc. (VCGI)
And the
Vermont Geographic Information System (VGIS)

January 2013

For
Governor Peter Shumlin
And
Vermont House and Senate
Appropriations Committees

Provided By the
Vermont Center for Geographic Information

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Cover photo: Infrared Image of Otter Creek, West of Rutland City from the Vermont Imagery Program 2011 Color and Infrared Orthophoto Acquisition .

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January 11, 2013

Honorable Peter Shumlin
The Statehouse
Montpelier, VT 05602

Dear Governor Shumlin;

The Vermont Center for Geographic Information, Inc. (VCGI) is pleased to provide you with the Annual Report of the Vermont Geographic Information System (VGIS), **Vermont GIS 2013: The Yearly Status Report**. This Annual Report focuses on the successes relating to the statutory requirements of our organization as well as some of this year's notable achievements in geospatial data and technologies within Vermont.

The demand for geospatial data assets in the state continues to increase as does the need for value-added data products. Data availability, both geospatial and non-geospatial, is an increasingly important enterprise resource as the state seeks to meet agency and public needs. VCGI has a role to play in the provision of that resource by enabling access to the state's geospatial data and advocating for commonly shared data solutions.

In order to support this growing demand for geospatial data VCGI has begun the implementation of necessary internal operational changes. The organization is transitioning to a more service oriented business model. VCGI has developed geospatial data and server support services in order to better meet the evolving needs of our stakeholders. The development of these services follows several of the recommendations that were provided in the GIS Duplication Report to the Legislature last January. These services provide a foundation for agency and public enterprises to build geospatial data applications and additional services that support their business needs.

Additionally in 2012, VCGI provided a substantial level of support to the state's Emergency Management, Public Safety and Homeland Security operations in an effort to consolidate and optimize their use of geospatial data resources. VCGI has provided support as all three organizations have undertaken system upgrades to increase the effectiveness of their internal operations.

This past year, VCGI also continued its geospatial technology training support to agency, town, school, and businesses personnel. That training was also available to the public. Geospatial technology training opportunities and webinars were, in some cases, expanded. VCGI also hosted a review activity after tropical storm Irene that was focused on the 'lessons learned' in the geospatial resource management community during, and after, the storm. There was wide community involvement in this review and they provided several recommendations. Some of those recommendations have resulted in actions, but many require further action.

VCGI is doing what it can to meet the challenges of a quickly evolving technology landscape and we will continue to do so in the upcoming year. Thank you for your support of this organization. Please feel free to contact me at any time if you have any questions or comments.

Sincerely,

David F. Brotzman
Executive Director
davidb@vcgi.org

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This report could not have been prepared without the comments and contributions of the Vermont GIS community, including Vermont's regional planning commissions, commercial GIS firms, and numerous state and federal agencies. I would also like to acknowledge the VCGI staff for their assistance in the production of this document.

David F. Brotzman, Executive Director

I. 2012 Year in Review

a. Organizational Accomplishments

Participation in the National GIS Community
The Executive Director of VCGI, David Brotzman, continues to serve as a Committee Chair on the National States Geographic Information Council (NSGIC) Technical Issues Committee. As an active Committee member David participates in the development of Federal GIS program and policy discussions. Mr. Brotzman is also co-Chair of the NSGIC Broadband Mapping Work Group, a committee that is involved with all of the states awarded an NTIA Broadband Mapping Grant. NSGIC also works closely with many of the major geospatial solutions providers in the world to establish an understanding of state focused product needs. NSGIC is the national leader in geospatial technology serving state level interests.

David is also on the Board of Directors of the GIS Certification Institute (GISCI). The GIS Certification Institute (GISCI) is a tax-exempt, not-for-profit organization that provides the GIS community with a complete certification program. GISCI is the leading GIS certification opportunity for the broadly defined GIS profession. Certified GIS professionals (GISPs) must show proficiency in three areas to be awarded certification; 1.) Educational Achievement, 2.) Professional Experience, and 3.) Contributions to the Profession.

Steve Sharp, Director of GIS Enterprise Services at VCGI was President-Elect of the New England Chapter of the Urban & Regional Information Systems Association (NEURISA) in 2012. Steve will step up to the Presidency in 2013. NEURISA is a professional organization that provides a forum for: promoting and facilitating the use and integration of spatial information technology, fostering relationships, professional development, and representing the interests of Geographic Information System (GIS) practitioners and Information Technology professionals across the New England region.

Participation in national and regional organizations such as NEURISA and NSGIC provides VCGI and Vermont an awareness of the activities of other states in the geospatial business area and enables Vermont to influence the development of geospatial policy on a regional and national level.

Vermont Leadership Institute – Professional Development
Mike Brouillette participated in the "Vermont Leadership Institute" (VLI) program offered by ***The Snelling Center for Government***. The eight session program held between September and June occurred at different locations around the state, involved highly effective leaders and staff and fostered a rich experiential leadership environment.

The program had many valuable lessons, but one in particular involved Appreciative Inquiry (AI) and proved timely and helpful in exploring VCGI's future strategic plan. AI is an organization development method that builds on what an organization already does well versus attempting to "fix" things it doesn't. Using the AI approach, VCGI staff attended an offsite workshop to kick off the strategic planning effort. Proceedings of the workshop have supported all subsequent and related efforts including VCGI's vision and mission statements, supporting strategic objectives and associated activities and metrics.

Private Sector Support
As a result of VCGI being the prime contractor for the NTIA's State Broadband Data Development grant we have had an opportunity to offer an unusually large amount of grant related contracts and sub-grants to the community. VCGI has currently allocated over $1.1 million in contracts to local and non-local businesses to be spent over the 5 year period of this grant. In addition, we were able to allocate over $1.2 million in multi-year sub-grants to government and non-profit project partners in the state.

This project funding, provided through the American Recovery and Reinvestment Act, has contributed positively to the economic health of the project partners in difficult economic times. It has enabled some of the partners to add fulltime staff. It has also enabled Vermont to develop a significantly clearer understanding of the availability of broadband technologies in the state.

Public Education

VCGI continues to provide a low cost introductory geospatial technology education opportunity for teachers, town personnel, and the general public. These geospatial education opportunities are made available through the efforts of VCGI's Outreach Coordinator and with some help from the University of New Hampshire Extension service. The main focus of this education is to support people who want to begin using the technology and have limited resources to do so. The specifics of our education efforts this past year are identified in the Outreach Activities Section of this report.

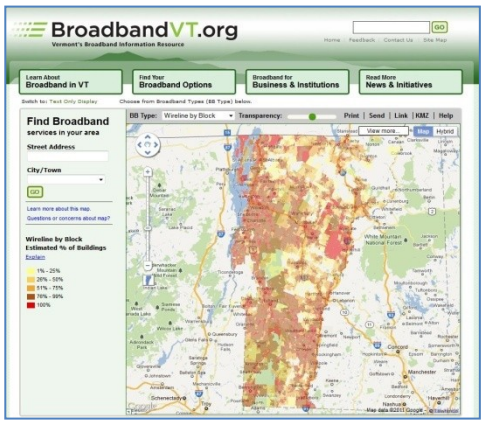
Support to State Agencies and Departments

Each year VCGI provides free geospatial consulting support to any agency, department or state entity that is new to using geospatial technologies. In most cases, this support takes the form of a succession of meetings where answers are provided about how other organizations use the technologies, what resources are available, how they can get started and long term costs. We follow-up with them and provide technical support as they develop. Our intent is to help them get started in using geospatial technologies in a way that meets their needs and their budget.

Requests for long term services or support usually necessitate a Memorandum of Understanding or a Service Level Agreement with VCGI receiving a fee for services. VCGI has such agreements with numerous state entities and we provide geospatial services ranging from part-time, in-house GIS support to system development consulting to RFP or proposal evaluation. When the request for services is from an agency or department that is looking for a service that can be supplied from the private sector we generally decline and recommend the private sector be used.

Broadband Mapping Initiative

VCGI and our partners continue to support the development of a robust broadband service inventory and coverage map of Vermont. Vermont's Broadband Mapping Initiative is a collaborative broadband data collection and verification effort involving partners from the public, private and academic sectors participating as the Vermont Broadband Mapping Team (BMT).



In 2012, the BMT continued to update and maintain a comprehensive and verified geographic inventory of broadband service availability in the State of Vermont. Landline and wireless services (fixed and mobile) were mapped, including wireless voice and data with information from the providers and other sources. The broadband mapping information collected through this effort is supporting Vermont's efforts to expand broadband availability in Vermont.

The Vermont Imagery Program

During 2012 VCGI continued to expand on the amount and type of imagery products available to the GIS community. This includes the maintenance of cached imagery and adat services, which provides the GIS community with fast displaying imagery based services.

The 2012 Spring collection of the Addison, Caledonia and Washington County areas has been completed and is in public distribution already. The statewide orthophotography is now being collected as 4-band, color and IR imagery, an upgrade that has been well received by the state and public user community. The imagery is distributed in both compressed and uncompressed formats. In addition, the new contract enables municipalities and State agencies the option to "buy-up" and acquire higher resolution imagery in any year of collection for that specific collection area.

VCGI – Strategic Planning

In 2012 VCGI undertook an organization-wide review of our Strategic Plan. This effort was precipitated by the full staff's recognition that the needs of our stakeholders and the direction of our technology area had significantly shifted over time. While we had seen these changes occur, we had not made significant changes to our business model. Management and staff recognized the need to be agile and proactive in making these changes. It was recognized that VCGI's overall mission had not changed, but the underlying strategic approach to achieving that mission had certainly changed with the evolution of technology. VCGI staff participated in strategic planning processes over several months this year culminating in the creation of a Strategic Plan for the 2012 – 2015 planning horizon.

Website Statistics

Latest web statistics show that VCGI served over 2.1 Terabytes of on-line information in 2012. 83% of which was GIS data (626 Gb) and imagery (1,156 Gb) served from our on-line GIS data repository (VT GIS Data Warehouse). VCGI had approximately 285,553 unique visitors to our web sites (www.vcgi.org, maps.vcgi.org, imagelibrary.vcgi.org).

b. Data and Project Related Activities

Steve Sharp, Director of Enterprise GIS Services

Vermont's Enterprise GIS Consortium(EGC)

The EGC had another productive year continuing efforts to foster efficient and effective use of the State's geospatial capabilities. The EGC made significant headway in a number of areas including the development of a web services strategy, LiDAR acquisition plan, and a strategic review of GIS resources and opportunities within state government.

The EGC is a voluntary consortium of state government organizations focused on effective management of State's Enterprise Geographic Information System (GIS). The EGC was chartered[1] by the State of Vermont in August 2008, culminating a yearlong strategic planning effort managed by the Enterprise GIS Taskforce[2] (EGT). The EGC has established a realistic and effective Enterprise GIS

[1] EGC_Charter_2008A_final.pdf

[2] The EGT has been replaced by the EGC.

Strategic Plan[3] (referred to as the *Plan* herein); a vision and a plan that supports a wide range of needs within state government. The Plan is an important part of the state's '*comprehensive strategy*' for the development and use of Vermont's Geographic Information System (VGIS)[4]. The VGIS represents a broad spectrum of geospatial activities and constituencies throughout the state of Vermont, including academic, town, regional, non-profit, state, private sector, and the general public. The Plan articulates a strategic vision for the development and use of geospatial technology within state government; a critical component of the VGIS.

EGC 2012 Accomplishments

1) **Vermont Enterprise GIS Consortium:** The EGC held monthly meetings throughout FY 2012. This allowed the EGC to maintain momentum on a number of work items identified in the FY 2012 Business Plan[5]. EGC member participation has been steady.
    - ***Strategic Plan Alignment:*** *Meets Objective 1*

2) **LiDAR Workgroup:** The EGC established a LiDAR Workgroup (LWG) to further the development of a consistent statewide LiDAR dataset. A SharePoint workspace[6] was established on the EGC's SharePoint site in support of the LWG's activities. The LWG has released a draft LiDAR Acquisition Plan for review by the GIS community. A final plan will be ready by fall of FY'2013.
    - ***Strategic Plan Alignment:*** *Meets Objective 4 & 9*

3) **VT GIS Duplication Analysis:** Act 63, Sec. E. §122(a) of the 2011 Vermont legislative session directed "The Vermont Center for Geographic Information Inc., in consultation with the department of taxes, the agency of natural resources, and the agency of transportation, shall report to the House and Senate Committees on Government Operations and on Appropriations on or before January 15, 2012, on methods to reduce and prevent duplication of services and activities across state government with regard to mapping services and other geographic data resources". In response to this directive the Vermont Center for Geographic Information (VCGI) reviewed the current state of mapping services and other geographic data resources throughout state government. VCGI undertook this effort with help from EGC members. A final report[7] was compiled by VCGI and endorsed by the EGC. The report was presented to the Legislature during the 2012 legislative session.
    - ***Strategic Plan Alignment:*** *Meets Objective 2, 3, 4, 5, 7, 9, 11, 13, & 17*

4) **EGC GeoPoint GIS Portal:** The EGC's SharePoint portal (EGC GeoPoint GIS Portal) was maintained and used throughout FY'2012 to share data and documents. The EGC developed and released a SharePoint portal in FY'2011. The objective was to build an Enterprise GIS web portal that would support EGC initiatives and would act as a central reference point for Enterprise GIS data and resources. The site is available to State employees, EGC stakeholders, and the public.
    - ***Strategic Plan Alignment:*** *Meets Objective 12 & 18*

5) **EGC Web Service Strategy:** The EGC drafted a web services strategy[8] for the State of Vermont's Enterprise GIS system. The strategy focuses on geospatial web services supporting desktop, web, and mobile applications. The Enterprise GIS Consortium (EGC) drafted this

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[3] EnterpriseGIS_SP_v2008A.pdf
[4] Vermont Statute (Title 10 VSA - Chapter 8 § 121)
[5] EGC_BusinessPlan_FY2012_final.pdf
[6] https://outside.vermont.gov/sites/egcgeo/lwg/
[7] GIS Duplication Analysis and Recommendations for Vermont State Government
[8] EGC Web Services Strategy

strategy in consultation with member agencies to facilitate the development of shared web services to support agency needs and reduce duplication of effort.

- ***Strategic Plan Alignment:*** *Meets Objective 2, 3, 10, & 12*

The State's Enterprise GIS Consortium (EGC) continues to make significant strides toward advancing the "efficient use of the state's Geographic Information Technology sources". It furthers this goal by improving and simplifying access to geospatial data and services, and by providing a venue where agencies can coordinate efforts. The EGC anticipates that FY'2013 will be another productive year.

Transportation Data

The Vermont Agency of Transportation and VCGI continued to work collaboratively to develop and maintain important transportation related datasets. VTrans continues to maintain and enhance its road centerline data and route log system. A 2012 release of its road centerline data was provided to VCGI for distribution. VTrans continues to distribute its geospatial data via the VGIS Data Warehouse, a data distribution system maintained by VCGI. VCGI continues to provide ongoing technical assist to VTrans upon request.

GIS Data Updates

VCGI posted many new and updated data layers provided by partner organizations (typically State Agencies). We thank our State Agency partners for their contributions. Here is the list of what was posted in 2012. Note: refer to imagery section for list of new aerial photography (orthophotos) released in 2012 (eg: 2011 orthos and 2011 NAIP).

Layer Name	Description	Post Date
BoundaryOther_ANRADMIN	ANR Administrative Boundaries	7/20/2012
CadastralPublands_ANRLANDS	ANR Lands Dataset (ALD)	8/1/2012
EcologicHabitat_HABITATBLKS	Vermont Habitat Blocks and Wildlife Corridors	10/31/2012
EnvironHazmat_HAZSITES	Hazardous waste sites in Vermont	4/23/2012
FacilitiesOther_USTSITES	Underground storage tanks in Vermont	4/23/2012
LandLandcov_IMPERVLCB08	Lake Champlain NDVI Impervious Surface Project	8/27/2012
TourismRecreation_FISHACCESS	Fishing Access Areas	9/12/2012
UtilityOther_STORMSEWER	Stormwater Infrastructure	9/12/2012
WaterOther_PARTA303D	2012 VT 303(d) List of Waters–Part A Impaired Surface Waters	8/8/2012
WaterOther_PARTSBTOG	2012 VT List of Priority Surface Waters	8/27/2012
DemoHousing_CCHOUSEPTS10	Chittenden RPC Housing/Dwelling units data layer (2010)	9/16/2012
BoundaryCounty_CNTYBNDS	Vermont county boundaries (extracted from BNDHASH)	2/16/2012
BoundaryOther_BNDHASH	Master village, town, county, RPC, and state boundary data	2/16/2012
BoundaryOther_HOUS2012	VT House Districts 2012	6/13/2012
BoundaryOther_LEPCBNDS	Local Emergency Planning Committee bnds (extract BNDHASH)	2/16/2012
BoundaryOther_SENA2012	VT Senate Districts 2012	6/13/2012
BoundaryOther_VILLAGES	Vermont village boundaries (extracted from BNDHASH)	2/16/2012
BoundaryRegion_RPCBNDS	Regional Planning Commissions (extracted from BNDHASH)	2/16/2012
BoundaryState_VTBND	Vermont state boundary (extracted from BNDHASH)	2/16/2012
BoundaryTown_TWNBNDS	Vermont town boundaries (extracted from BNDHASH)	2/16/2012

Layer Name	Description	Post Date
CadastralParcels_VTPARCELS	VT Parcel data provided by towns and RPCs	4/9/2012
DemoCensus_BLCK2010	2010 Census Block boundaries and stats	4/10/2012
DemoCensus_BLCKGR2010	2010 Census Block Group boundaries and stats	4/10/2012
DemoCensus_CEN2010	Other Census 2010 data resources	4/12/2012
DemoCensus_CNTY2010	2010 Census County boundaries and stats	4/10/2012
DemoCensus_COUSUB2010	2010 Census County Subdivisions (towns) and stats	4/10/2012
DemoCensus_STATE2010	2010 Census stats (statewide)	4/10/2012
DemoCensus_TRACT2010	2010 Census Tract boundaries and stats	4/10/2012
ElevationContours_CN20T	20 ft contours generated from 10 meter NED DEM	12/12/2012
ElevationDEM_DEM10M	USGS National Elevation Dataset (NED) 10 meter DEM	2/22/2012
ElevationOther_ASPECT10M	Surface Aspect raster generated from 10 meter NED DEM	2/22/2012
ElevationOther_HILSH10M	Hillshading generated from USGS 10 meter NED DEM	2/22/2012
ElevationSlope_SLOPE10M	Slopes generated from USGS 10 meter NED DEM	2/22/2012
EmergencyE911_ALPINELIFTS	E911 alpine ski lifts data layer	12/7/2012
EmergencyE911_DW	Driveways captured for E911 use	12/7/2012
EmergencyE911_ESA	E911 Emergency Service Agency Locations	12/7/2012
EmergencyE911_ESITE	E911 Site locations (buildings, hydrants, public phones, ..)	12/7/2012
EmergencyE911_ESZ	E911 Emergency Service Zone data layer	12/7/2012
EmergencyE911_FOOTPRINTS	E911 building footprints layer (limited set of buildings)	12/7/2012
EmergencyE911_HYDRANTS	E911 Fire hydrants data layer	12/7/2012
EmergencyE911_JBOUND	E911 town boundaries data layer	12/7/2012
EmergencyE911_LANDMARKS	Landmarks captured for E911 use	12/7/2012
EmergencyE911_LKUPTABLES	E911 lookup tables - tabular	12/7/2012
EmergencyE911_RDS	E911 Road centerlines from 1:5000 orthophotos and GPS	12/7/2012
EmergencyE911_SHEETS	E911 Atlas Map Sheets Boundaries	12/7/2012
EmergencyE911_TRAILS	E911 trails data layer	12/7/2012
UtilityOther_CVPSLIGHTS	Central VT Public Service (CVPS) lights	5/7/2012
UtilityOther_ELCFRANCHISE	Vermont Electric Utility Franchise Areas	3/21/2012
UtilityTransmit_CVPSPOLES	Central VT Public Service (CVPS) utility poles	5/7/2012
WaterHydro_DLGSW	USGS DLG surface waters (1:100,000)	12/7/2012
TransRoad_PAVCON2011	Pavement condition data - 2011	3/3/2012
TransRoad_RDS	VTrans Road centerlines from 1:5000 orthos and GPS	8/7/2012
TransRoad_RDSMAJ1	Interstate, US, State, and Class 1 (TransRoad_RDS)	8/7/2012
TransRoad_RDSMAJ2	Interstate, US, State, and Class 1 & 2 (TransRoad_RDS)	8/7/2012
TransRoad_RTLOGPTS2011	VTrans 2011 Route Log intersection and LRS calibration pts	3/3/2012
TransStats_AADT2010	Average Annual Daily Traffic: 2010 - Int, US, VT routes	3/3/2012

VCGI Web Services

VCGI continues to host and maintain several web services that help Vermonters with their mapping efforts. These include the VT GIS Basemap service, cached imagery services, and address geocoding service. These services are used in a number of state web applications including;

- Vermont Commercial/Industrial Site Locator
- Vermont Interactive Map Viewer
- Agency of Natural Resources - Natural Resources Atlas

These services are also used by public and private constituents who need them to streamline the work they do. For example, the VT GIS Basemap service eliminates the need to download hundreds of basemap layers. Instead the user can "stream" the basemap into their web browser or mapping software, saving countless hours that would be spent updating these layers over time.

Mike Brouillette, Web Applications Administrator

Hydrography – Vermont Hydrography Dataset

The Agency of Natural Resources (ANR) request to assume the role as state steward for Vermont's National Hydrographic Databases (NHD) was granted in late 2012. VCGI will assist in the transition starting in early 2013. This is a fortunate development as their mission is strongly intertwined with aquatic habitats and their highly developed GIS technical expertise will readily adapt the NHD software tools.

NHD updates did not occur in 2012 due to a lack of funding and primary focus spent on strategic organizational needs and planning and implementation of the VCGI virtual environment.

Vermont Department of Agriculture, Food and Markets

Partnering with the Vermont Agency of Agriculture, Food and Markets (VAAFM), VCGI consulted with the Agency on the design, construction and implementation of a draft enterprise GIS (AGR GIS) in support of the Agency's business use cases. Efforts to date include the successful population of constructed geodatabases for agribusiness locations, agricultural boundaries, apiaries and farm sites and structures, using tabular and spatial Agency data. In 2013 it is anticipated these layers will be finalized thus establishing the foundation for future Agency efforts, e.g., supporting mobile field efforts and web applications.

VCGI Network Maintenance and Development

The "virtualization" effort initiated in spring 2011 by VCGI to migrate the VCGI network to the Virtual Environment (VE) within the Vermont Department of Information and Innovation (DII) data center was ultimately finalized over the summer with the VE "stood up" in late September. Due to issues with network "latency", the round trip time involved to access large volumes of files over the network to/from Montpelier/Waterbury, a new physical file server was installed at VCGI. This singular exception to the virtualization effort was absolutely necessary due to the high computational nature of GIS software and operations in light of the unacceptable performance experienced. Additional disaster mitigation measures of updating the backup system and procedures, as well as, further elevating the file server platform were taken as simple prevention measures against the impacts of another "Irene" level event.

With the VE in place, a majority of the initial System Administration effort was spent on implementing security measures and configuring access to the individual Virtual Machines (VM's). Having secured a stable and secure IT foundation the stage is set for full implementation of the "Architectural Assessment" plan, created in concert with DII, in late 2012/early 2013.

Vermont Sustainable Jobs Fund – Renewable Energy Atlas

The scope of work in the 2012 "Phase III" effort was much smaller than those of previous years with the application reaching maturity and shifting to a maintenance mode. Initially released in April of 2010 (Phase 1), the VCGI related 2011 updates "Phase II" of both solar Thermal (domestic hot water) and solar PV "ground mount" layers went live in early 2012, along with the successful "crowd sourcing" functionality coded by a VSJF contractor.

The primary focus of 2012 Phase III effort involved working with ANR to acquire and integrate the Agencies Natural Resource Mapping Project (NRMP) "BioFinder" data layer into the Atlas.

Dejung Gewissler, System Administrator and Ivan Brown, Database Administrator

Virtual Vermont

VCGI continues to advance the use of geospatial data in the Department of Public Safety through the *Virtual Vermont* project. The *Virtual Vermont* project is fostering upgrades to GIS databases, centralization of geospatial data for use throughout the Department of Public Safety, and improved data currency.

GIS databases are undergoing an upgrade process which will increase the robustness of those databases to the latest technology. These modern GIS databases will serve as a centralized GIS data resource to several systems and functions, including the DisasterLAN (DLAN) incident management system and the GIS component of the State Emergency Operations Center (SEOC). VCGI will attach workflows and automated processes to these GIS databases to assure that GIS data is periodically replicated to the Department of Public Safety from other organizations, keeping data sources of the Department of Public Safety current.

VCGI is taking a leadership role in improving the flow of road closure information into various systems during events. A workgroup composed of several state partners has formed to address the challenge of assuring that the closure states of local roads, state roads, and federal interstates are efficiently maintained and disseminated to systems, including VTrans 511, DisasterLAN (DLAN), and the GIS component of the State Emergency Operations System (SEOC). Road closure information can arise from any of several organizations from the town level to the regional level.

VCGI coalesced critical facilities data which was updated by the state's regional planning commissions into a single GIS database. VCGI subcontracted with the Central Vermont Regional Planning Commission in order to establish a workflow that will keep the critical facilities GIS database current with updates that arise from the state's regional planning commissions.

Vermont Emergency Management (VEM-HS)

VCGI continues to have a critical role in the use of GIS within Vermont Emergency Management and Homeland Security (VEM-HS). VEM-HS contracts with VCGI for provision of GIS support. VCGI participates in emergency management exercises and serves VEM-HS during events.

VCGI participated in the New England Radiological Health Exercise of 2012 by attending a tabletop exercise as well as a drill which included use of the State Emergency Operations Center (SEOC). Opportunities for providing GIS support to event management were identified in both the tabletop exercise and the drill. Furthermore, protocols for receiving data from the Health Department were put

to the test during the drill. VCGI reviewed a tool for field reading tracking (Field Readings Tracking Tool), which was produced by the Health Department, to assure that exposure data collected in the field is in a format that can be quickly loaded to GIS software for display and analysis.

VCGI participated in a drill in December which was an opportunity to identify improvements that can be made to the provision of GIS services in the State Emergency Operation Center (SEOC) during a Vermont Yankee event. Definition of the process of activating GIS human resources as an event unfolds was made clearer. The pathway through which the SEOC GIS receives exposure data from the Department of Energy was identified. Rapid display of this data, which is some of the most accurate exposure data, will serve the situational awareness needs of the SEOC well.

VCGI is composing a GIS manual for the State Emergency Operations Center (SEOC). The manual will encapsulate SEOC-GIS standards, workflows, and procedures, which VCGI is developing in concert with its SEOC-GIS partners. The GIS manual will foster collaboration when a pool of GIS human resources is utilized in the SEOC over the courses of events, especially events that span multiple operational periods.

Post-Tropical Cyclone Sandy
VCGI, along with its GIS partners, served the State Emergency Operations Center (SEOC) as part of the state's response to Post-Tropical Cyclone Sandy. While Sandy turned out to be a very minor event in Vermont, opportunities for improving the use of GIS in the SEOC were identified over the course of the response. VCGI has collected feedback from its GIS partners in the wake of Sandy to support its effort toward improving the efficiency and effectiveness of GIS in the SEOC.

c. Outreach Activities

Leslie Pelch, Web Content Manager

VCGI has a Facebook Page: 134 people "like" VCGI on Facebook (up 29 from last year). We post information about events, data, and resources. Search for Vermont Center for Geographic Information while in Facebook to find the site.

VCGI has a Blog: 44 (up 5 from last year) active subscribers receive emails letting them know when something new is posted at this web page. We post articles about events, data, links to resources and interesting information. http://vcgiblog.wordpress.com/

VCGI continues to have an active Email Listserv: The listserv is another venue for VCGI to provide information about data and events, but also provides a forum for 654 subscribers (up 73 from last year) to post technical questions and get quick answers.

VCGI offers Webinars: VCGI offered 5 webinars during the fall of 2012 and plans to offer at least 7 more in early 2013. Around 85 people participated in webinars during the fall/winter. Presenters include VCGI staff, private sector consultants, academic staff, and state employees. Participants include people from both the public and private sectors. VCGI has also begun providing the summer Intro to GIS training that we offer as a webinar (in addition to the live training). The webinars are free to attend and are recorded and posted at our web site.

VCGI partnered with UNH Extension to provide more training opportunities in VT. UNH Extension's Geospatial Technologies Training Center (GTTC) offers an extensive array of workshops from three hours to several weeks long. They agreed to cross the border and offer a few of those workshops to an eager VT audience. This partnership gave VCGI a very efficient way to offer relevant training to Vermonters. In 2012, the GTCC offered Intro to ArcGIS 10.0. Over 40 people participated in these three-day workshops at three locations.

VCGI partnered with VT Technical College to offer our own Introduction to GIS/GPS training: VTC campus in Williston and VTC campus in Randolph 30 people participated in this 2-day training to learn how to use free GIS software and a handheld GPS unit.

Other Events and Activities

In addition to training and online outreach, VCGI's Outreach Coordinator organizes and participates in events and activities around the state with a variety of different interest groups.

Events and Activities VCGI Organized in 2012:

- January - Municipal and Irene GIS Conference in Montpelier: day-long conference, 60 attendees
- January - March - Webinars
- February – Legislative Display on GIS/Mapping in VT in the Card Room
- March/September - VCGI coordinated two meetings of VT GIS community members to talk about creating an index of existing hard-copy VT aerial imagery and ortho imagery. A draft index has been created, and needs to be finalized and populated by partners like VTrans, VT ANR, UVM Map Library, and others as they are identified.
- April - - Ignite Spatial Vermont evening reception in partnership with New England URISA - a professional networking event featuring lightning presentations. This event included students from VT colleges and universities presenting!
- April/May - 2 half-day VT Coverts workshops on using online mapping applications and handheld GPS units
- June - Training Workshops in Partnership with UNH Extension
- July - VSDP Roundtable Conference in Rutland, various GIS topics
- July/December - VCGI coordinated two meetings of many members of the VT GIS community to discuss coordinating and supporting VT Emergency Management during an emergency.
- July/August – Introduction to GIS/GPS 2-day trainings in 2 locations
- September - Training Workshops in Partnership with UNH Extension
- November/December – Webinars

Events and Activities in which VCGI Participated in 2012:

- April – Town Officer's Education Conferences - 4 locations around the state
- September – staffed booth at VT League of Cities and Towns Town Fair Annual Meeting
- September – Staffed booth at VT Emergency Preparedness Conference
- October - Staffed booth at UVM Career Fair

- October - Staffed booth and helped put together panel discussion on Mapping Technology at Tech Jam 2012
- December – Staffed booth at VT Alliance for the Social Studies Conference

d. Business Review

Audit

Johnson Lambert LLP performed the yearly independent audit of VCGI's financial information. No material weaknesses or significant deficiencies were found. A full copy of the entire audit report including the Financial Statements and Supplementary Information, Management Letter and Compliance Reports is available from VCGI; contact David Brotzman, Executive Director.

Board of Directors

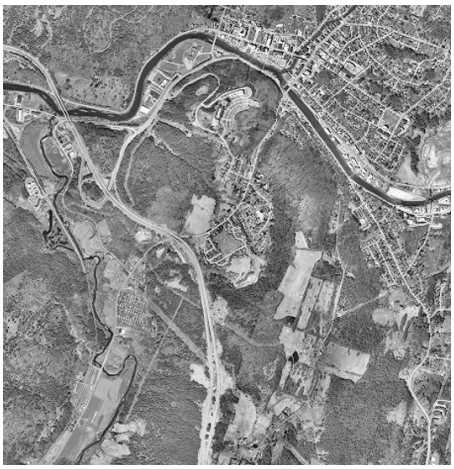
- Peter Telep was appointed to a seat on the VCGI Board of Directors to represent the Agency of Natural Resources, replacing Larry Becker.
- John DeLeo, representing higher education, resigned his seat on the Board.

II. VGIS – Status Report on Vermont's Geographic Information System

VCGI's 2013 Annual Report provides the Governor, the Vermont General Assembly, and our citizens with information about Vermont's steady progress in building a high quality Vermont Spatial Data Infrastructure. This section of the Annual Report Provides a status on eight of the hundreds of data layers available to the public in Vermont. These eight layers are considered to be the foundation of an effective spatial data infrastructure and are often called *Framework Data* for their critical role in establishing a data model.

a. Digital Orthophotography

Orthophotographs are detailed aerial photographs from which all distortion has been removed. Since 1974 Vermont has provided orthophotographs showing taxpayers their land and buildings at 1:5,000 (1"=416') scale. These pictures have a wide variety of uses. They can be reliably measured and they remain an important tool for town planners in local planning and development. Since1994, these photos have been made available in both digital and hardcopy format.



Some towns and cities have, at their own expense, contracted to purchase additional orthophotography at larger scales and better resolution, usually 1:1,250 scale. The larger scale enables greater accuracy and feature definition. Towns or Cities such as Barre City, Randolph Village, Burlington and Winooski have taken advantage of purchasing the larger scale imagery. South Burlington, Burlington and several other communities in Chittenden County partnered on an updated 1:1,250 scale orthophoto acquisition project that also included high density LiDAR elevation data collection over the same area.

Status: The chart below shows the vintages of orthophotos and by county. However, the production area rarely aligns with complete county boundaries. The names generally designate a general region and not an exact or complete county coverage.

County	Ortho #1	Ortho #2	Ortho #3	Ortho #4	Ortho #5	Latest Update
Addison	1978	1995	2006	2012		Completed
Bennington	1974	1992	2000	2010	2015	Scheduled
Caledonia	1982	1999	2006	2012		Completed
Chittenden	1978	1988	1999	2007	2013	Funded
Essex	1982	1999	2009	2014		Scheduled
Franklin	1978	1995	2008	2013		Funded
Grand Isle	1978	1995	2008	2013		Funded
Lamoille	1979	1996	2007	2013		Funded
Orange	1979	1998	2006	2014		Scheduled
Orleans	1982	1999	2008	2014		Scheduled
Rutland	1975	1994	2006	2011		Completed
Washington	1979	1996	2006	2012		Completed
Windham	1974	1989	2000	2010	2015	Scheduled
Windsor	1975	1994	2006	2011		Completed

VCGI manages the VT statewide orthoimagery program, which includes acquisition of the imagery, quality control and dissemination of the imagery. The RPC's have volunteered to work closely with their member

towns to provide the orthophotography in hard copy, as per both statute and need, while the State Archivist has volunteered to work with the Tax Department to secure and provide access to all historical hard copy orthophotography.

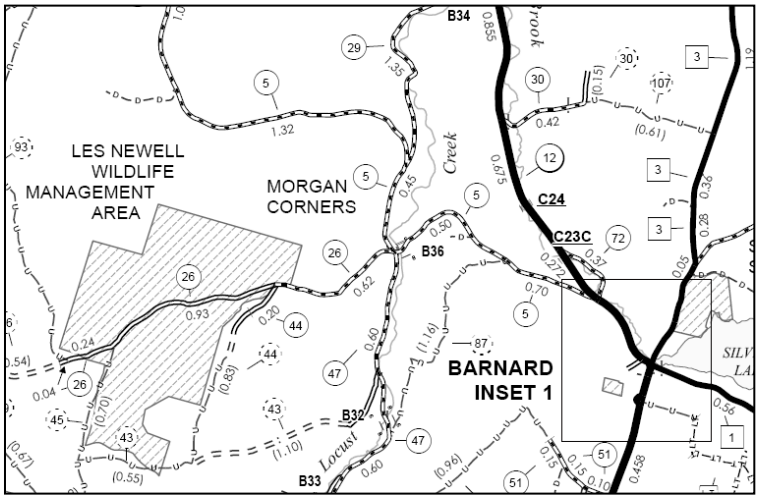
VCGI offers the digital orthophotography, in compressed format, on-line via download, for free. The uncompressed digital orthophotography imagery and other datasets too large to download on-line are available on digital storage devices for a nominal fee.

b. Transportation Data – with contributions from Johnathan Croft (VTrans)

Vermont's Transportation data layers consist of road centerline, railroad, bridge, airport, and other transportation critical information (ex: traffic volume, crash locations, pavement condition, etc.) The quality of transportation data overall in Vermont continues to be recognized as being very high.

The Agency of Transportation (VTrans) and the Enhanced 911 Board (E911) continue to work together to merge each organization's road centerline data layer into a single master, statewide road centerline data layer. VTrans and E911 have developed a data model that incorporates the fields necessary to fulfill their missions and will be meeting to discuss the next steps, which include data storage location, conflation of the attributes to the most accurate geometry, establishing update protocols, and defining split policies.

VTrans continues to maintain the road centerline data with changes provided from VTrans and from municipalities. This data layer is the core data behind the production of the Town Highway Maps and the generation of the mileage summaries. VTrans continues to update the data supporting the Route Log System. VTrans continues to provide a yearly release of its road centerline data and associated Linear Referencing System (LRS) information to VCGI for distribution.



VTrans, with support from VCGI, the RPCs and others, maintains a statewide bridge and culvert layer. The layer includes all known bridges in the state of Vermont, and all major culverts (>6 ft.) on Interstate, US and State highways. The bridge layer also includes long structures (>20 feet) on Town Highways. The Mapping Unit has incorporated the town short structures (6 to 20 ft.) from the Vermont Online Bridge & Culvert Inventory Tool (VOBCIT) on the Town Highways Maps. In late 2012 VTrans hired a consultant (RSG) to review/revise the VOBCIT tool.

Status: The transportation data in the state is in very good condition. VTrans has maintained and improved an accurate, robust, and up-to-date repository of data. That data is being integrated into new, more sophisticated and automated, processes by VTrans as resources allow. The state's rail and right-of-way information is being digitized from hardcopy maps. In the wake of Tropical Storm Irene, the VT Department of Transportation has expanded the role of GIS in its daily operations and planning activities. Additional personnel have been hired and activities related to digitization of the state's rail corridors have been initiated. VTrans is also supporting state emergency management needs by working with VCGI and VEM on providing state and federal road closure information as a service for use by VEM.

c. Land Cover

Accurate land cover spatial data allows Vermonters to better visualize the choices in issues ranging from economic growth to natural resources protection. Land cover data shows areas broken down into many sub-categories of Forests, Wetlands, Water, Rock, Cleared Land, and Urbanized Landscapes. When combined with other spatial data, land cover data enables us to make important observations about our productive lands, protective ecosystems, and planned development areas.

Status: Statewide land cover data suitable for use at county or regional scale mapping and analysis has been derived from satellite imagery (Landsat), and is highly compatible with similar data for New York and New Hampshire. That data was completed in September 1997. In 2005, researchers at UVM led by Dr. Austin Troy completed a statewide update of this dataset. This data was created through the use of a supervised classification algorithm combining parametric and nonparametric rules to classify the Landsat scenes, yielding 4 spectral classes: 1) forest 2) urban (impervious), 3) water, and 4) other. Second, several ancillary data layers, such as the E911 roads layer, the Vermont Hydrography Dataset (VHD), and USDA Common Land Units (CLU) were used to refine the classification. Manual edits were then carried out to refine the classification result using National Agricultural Imagery Program (NAIP) orthophotographs acquired in 2003 as the reference source. The four classes defined were then expanded to16 classes on the basis of the LCLU dataset for Vermont and the Lake Champlain Basin generated in 1993 by applying reclassification rules.

Additionally, in 2006 USGS and the Coastal Services Center completed small-scale source (30 meter imagery) based collection of land cover data in the Northeast U.S. in support of a National Land Cover/Land Use data set. This data was made available in 2006, but it is of limited use at that scale for local resolution studies and analysis. Improvements are being made in the Land Cover data in the state primarily by academic contributors such as Dr. Troy and others at the UVM Rubenstein School. Individual local project areas are being analyzed by Regional Planning Commissions in the context of planning and zoning efforts.

Status: There has been little to no improvement in the statewide Land Cover data since 2006. Local and regional Land Cover data may be updated on a project by project basis.

d. Cadastral or Parcel Data – with help from Leslie Pelch, Outreach Coordinator (VCGI)

In 1988, Vermont's five-year GIS Plan identified digital municipal parcel boundaries as a fundamental need to support town planning and development. Dozens of towns have invested in high quality parcel maps over the years, and state funding (1989-91) supported conversion of existing paper property maps into digital data. Digital parcel data help municipal officials to perform a more accurate property tax assessment. Towns link the parcel data to their Grand Lists and then are able to have detailed tax information. Municipal tax officials, realtors, planners, and property developers use this data to show taxpayers how proposed development or changes in municipal services and regulations will affect them. In many towns, parcel data helps to assure fair tax distribution, plan services, provide public notices, and many other municipal functions.

Status: VCGI's attempts to survey the current status of parcel boundary data indicate that at least 80% of towns have parcel data in digital form. Tax maps and digital parcel boundary data are the responsibility of each town; as a result, it can be challenging to access and compile that data. In 2011, with the help and support of the GIS Managers at the Regional Planning Commissions, VCGI collected the most recent parcel data available from as many towns as possible.

Status: While each year there is a small number of towns that have begun to use parcel data in digital format, there has been no significant growth in participation in the last year.

e. Elevation Data

Elevation data in Vermont consists of Digital Elevation model (DEM) data and land contour information. DEM data provided by the USGS has been distributed by VCGI for years. Contours were generated from the DEM and these can be effectively used to show general topography. The demand for elevation data of increased accuracy is becoming more critical every year as the state looks for environmental, public safety, and regional planning in Vermont. Accurate, large scale, digital elevation data is required for storm water analysis, land modeling and a large number of land use related issues. It is also necessary for creating three dimensional representations of the surface for visual and analytical purposes.

Status: USGS 10 meter elevation data has been integrated into the state data repository and was made available in late February 2012.

VCGI provides the following elevations data products to the public;

- All available LiDAR on a hard drive (http://www.vcgi.org/dataware/?page=./image_library/media_info/ALL-LDR_MIX_LIDAR_STATE_ALL.htm)
- 10meter DEM (www.vcgi.org/dataware/?layer=DEM10M)
- 20ft contours (www.vcgi.org/dataware/?layer=CN20T)

The recent flooding and destruction from Tropical Storm Irene emphasized the impact of having an inadequate statewide digital elevation model in Vermont. Following TS Irene FEMA recommended Vermont acquire a high-resolution elevation model in order to support future hazard mitigation efforts. The emergency and public safety community, as well as a broad range of other critical state interests, has identified significant needs for a statewide high resolution digital elevation model (DEM).

At this time, airborne Light Detection and Ranging (LiDAR) technology is recommended as the preferred method for acquiring elevation data of sufficient accuracy and resolution for those purposes. Other states have routinely collected LiDAR to create elevation data with 15-50 cm. vertical accuracy and supporting surface contours of 1- 2 ft. vertical map accuracy. Several states have statewide LiDAR at this time. (e.g. Virginia, Pennsylvania, Maryland, Iowa, Louisiana, and North Carolina). Other states such as Oregon, New Hampshire, Tennessee, Kentucky, Ohio, and Florida have funded plans in place for LiDAR acquisition. All 50 states have some LiDAR data coverage in their state although it is mostly limited to local regions.

VCGI and the EGC partners have created a plan defining a set of actions required to acquire LiDAR data and derivative products that are of sufficient design, accuracy, consistency, coverage and resolution to meet the business needs of the broadest possible user community in the state. Funding partnerships will be pursued through as many available channels as possible.

f. Hydrography – Contributed by Mike Brouillette (VCGI)

Hydrography data includes river, stream, lake, and pond features in the Vermont Hydrography Dataset (VHD), with wetlands, dams and hydroelectric dams in separate layers. Combined, these spatial data constitute valuable resources at the federal, state, town and individual levels. Analysis applications include renewable energy, storm water run-off, pollution control, emergency mitigation and response, local and regional planning, land development, transportation planning, and many more.

Status: Vermont has statewide coverage of "large scale" (1:5,000) hydrographic data. This year the Agency of Natural Resources offered to take responsibility for stewardship of the VHD.

g. Geodetic Control (excerpted from the VT Geodetic Survey Website, December 2012)

The use of the Global Positioning System (GPS) for positioning and mapping has been steadily increasing since its introduction in the late 1980's. The Geodetic Survey Section of the Vermont Agency of Transportation maintains a network of Continuously Operating GNSS (Global Navigation Satellite System) Reference Stations (CORS). These stations are intended to operate 24 hours/day seven days/week. The availability of a quality CORS network in the state also provides a valuable position accuracy resource for the state's orthophotography acquisition program.

CORS are geodetic quality GPS receivers and antennas that are permanently installed. These stations collect GPS data continuously, and transmit data via the Internet to a central server. At the server, the data is archived for future use, and made available for download by any user. There are two separate components to the system: Downloadable Data for post-processing and Real-Time Corrections to support real-time applications.

Status: The statewide Vermont's CORS network was designed to have a nominal spacing of 40 to 50 km. Locating these stations in Vermont can be problematic due to site and infrastructure requirements. Ideally, the antenna needs to have an unobstructed view to the sky down to the local horizon; there must be a masonry building on site where the antenna mast can be mounted with maximum stability, and there must be power and high-speed internet available. Also, it is desired to have these stations in secure locations and it is preferred that they reside on State property. In order to effectively cover the entire state, 19 CORS stations are required. There are 17 existing CORS stations maintained in the state and 2 additional stations are planned. These are:

- Transportation District 2 office in Dummerston (VTD2).
- Springfield High School in Springfield (VTSP).
- Oxbow High School in Bradford (VTOX).
- Transportation District 7 office in St. Johnsbury (VTD7).
- District Court House White River Junction (VTWR).
- Vermont Technical College in Randolph (VTC1).
- 133 State Street in Montpelier (VCAP).
- Bellows Free Academy in St. Albans (VTSA).
- Island Pond District Garage in Island Pond (VTIP).
- District 9 Garage in Derby (VTD9).
- Bennington Fire Station in Bennington (VTBE).
- Asa Bloomer Building Rutland (VTRU).
- Currier Memorial School Danby (VTDA).
- Middlebury Union Middle School in Middlebury (VTMI).
- Hazen Union High School in Hardwick (VTHA)
- Coolidge Building at University of VT (VTUV)
- Camels Hump Middle School in Richmond (VTRI)

These CORS stations are also stations included in the National CORS Network.

h. Political Units

Political units consist of boundary information for political entities such as towns, counties, supervisory unions, administrative boundaries, legislative districts (house and senate), etc.

Status: Statewide coverage defining Town, County, Regional Planning Commissions, Supervisory Unions and School Districts are available through VCGI. There is no statutorily designated organization that is responsible for ensuring the spatial integrity of the VT Town, County and State boundaries. The Office of

the Secretary of State does keep records relating to the recording of state boundary records and State Legislature has records of some boundary changes that were put into statute. Because of the critical nature of town boundaries to its operations the VT E-911 Board has undertaken an initiative to update and manage the state's town boundaries. Surveyed boundaries remain the only legally supportable representation of boundary information in the state.

III. VCGI's Vision, Mission Statement and Strategic Plan

a. Organization

In January 1992, Governor Howard Dean, M.D. issued an executive order establishing VCGI as a non-profit corporation under the authority of a Board of Directors. The Board includes twelve directors appointed for two-year terms to represent state agencies, regional planning commissions, local government, higher education, private sector and both chambers of the Vermont General Assembly. The Board has the responsibility for general management of and authority over the property, business and affairs of the center.

VCGI is located in Waterbury, VT. It is currently staffed by six full-time employees, a part-time GIS Technician and an independent contractor that performs the duties of business manager.

b. Vision

VCGI is the nexus of GIS in the VT GIS Community.

c. Mission Statement

Vermont Center for Geographic Information, Inc. (VCGI) will deliver high quality geospatial data, standards, services, solutions and information to our customers and stakeholders using methods that are innovative, client-focused and consistent with our enabling legislation.

VCGI will provide strategic leadership and promote awareness and open communication in support of the VT GIS community.

VCGI will establish the infrastructure necessary to support financially responsible business activities and challenge all employees in an engaging and supportive environment.

d. Strategic Plan 2012 -2015

Strategic Objectives

Objective 1

1.0 VCGI is the recognized clearinghouse for GIS data in the state.

1.1. Activity - Improve data warehouse architecture.
Metric - Monitor percent complete and survey feedback.

1.2. Activity - Improve marketing of our capabilities.
Metric - Monitor web stats.

1.3. Activity - Make it easier to use the warehouse for publishers and consumers.
Metric - Monitor web stats of consumers.
Metric - Track submissions and updates of publishers.

1.4 Activity - Assist consumers and publishers using the clearinghouse.
Metric - Use of customer surveys.

1.5 Activity - Improve turnaround time for release of new updated data and services.
Metric - Monitor and measure turnaround on data and services.

1.6 Activity - Become best and most useful data portal solution.
Metric - Monitor web stats.
Metric - Use of customer surveys.

1.7 Activity - Expand warehouse to include web service.
Metric - Monitor percent complete.

1.8 Activity – Provide data and web service hosting options to EGC partners.
Metric – Publish and maintain data and web service hosting offerings that are used by 1 or more EGC partners

Objective 2
2.0 VCGI is the foundation of GIS activity in the state

2.1 Activity – Become a recognized GIS policy resource in the state.
Metric - Increased involvement with legislative activities and administrative task forces and groups.

2.2 Activity – Provide primary support to EGC & Enterprise GIS initiatives
Metric – Measure completion of tasks in the EGC strategic plan

2.3. Activity - Market VCGI role as state GIS Coordinator
Metric - Monitoring level of involvement with legislature and administrative initiatives

2.4 Activity - Build & maintain relationships with GIS partners & identify important committees
Metric – Increased involvement with GIS partners and important committees.

2.5 Activity - Advocate for geospatial leadership position w/CIO
Metric - Established and recognized position created at the state level

Objective 3
3.0 VCGI uses all avenues available to effectively communicate relevant geospatial information

3.1 Activity – Make outreach a shared responsibility
Metric - Monitor contributions by staff members to outreach efforts.

3.2 Activity – Develop and implement an outreach and marketing plan
Metric – Plan has been drafted, approved and implemented.
Metric - Conduct comprehensive reevaluation of VCGI's Outreach/feedback/solicitation efforts and report findings to group for action.

3.3. Activity - Make outreach a shared responsibility
Metric - Monitor contributions by staff members to outreach efforts focused on GIS and IT trends..

3.4 Activity - Develop and implement an outreach and marketing plan
Metric – Plan has been drafted, approved and implemented.

3.5 Activity - Improve marketing of VCGI capabilities and services to state government
Metric – Develop a State Marketing Plan

3.6 Activity - Establish support mechanism(s), e.g., help desk.
Metric - Help desk or other mechanism has been established and customers are aware of it.

Objective 4

4.0 VCGI has extensive and forward looking geospatial expertise

4.1 Activity – Employees devote time to learning more to keep our expertise current, e.g., training.
Metric - Employees attend at least one training each year.

4.2 Activity – Cross Train Employees
Metric – Primary and secondary POC for each technical role supported by sufficient skills to execute roll.

4.3. Activity - GISP certification for technical staff
Metric - Technical staff maintain GISP certification

4.4 Activity - Maintain awareness of GIS and IT trends relevant to users
Metric – Level of staff contribution to outreach efforts focused on GIS and IT trends.

4.5 Activity – Professional Involvement
Metric - Track professional involvement by staff

Objective 5

5.0 We are proud to be part of this organization

5.1 Activity – Pursue team building opportunities
Metric - One team building opportunity per year.

5.2 Activity – Customers are satisfied with products and services
Metric – 50% or more of all feedback is at level "highly satisfied" or greater.

5.3. Activity - Motivated and engaged staff pursuing the organizational mission
Metric - One or more innovative solutions per year
Metric - Performance based compensation

5.4 Activity - Staff engaged in decision making
Metric – Regular staff meetings
Metric - One or more staff present at every board meeting

Objective 6

6.0 We anticipate the needs of our clients, transforming them into opportunities

6.1 Activity – National, regional and state community involvement
Metric - Engaged in professional activities identified by GISP ongoing certification

6.2 Activity – Research and identify the needs of our customers
Metric – Customer survey provides clearly identified needs
Metric - One-on-one meetings with key constituents, e.g., EGC partners
Metric - Outreach coordinator identifies needs at outreach events

6.3. Activity - Research and testing of new and/or promising solutions
Metric - Quarterly internal presentations on new and promising solutions

6.4 Activity - Integrate emerging solutions with customer needs
Metric – Implement one or more new solutions per year
Metric – Each employee presents on one or more new solutions at staff over the course of a year.

6.5. Activity - Identify priorities for an annual Work Plan
Metric - Integrate one or more priorities into an annual Work Plan

Objective 7

7.0 Our clients are highly satisfied with our products and services.

7.1 Activity – Conduct exit interviews and/or satisfaction surveys with project clients
Metric - Receive greater than 50% "highly satisfied" response.

7.2 Activity – Continue outreach surveys (for issues "actionable" by VCGI)
Metric – 50% or more of all feedback is of level "highly satisfied" or greater.

7.3. Activity - Integrate customer feedback into improving products and service(s)
Metric - Document and track feedback and action.

IV. Financial Overview

Act 204 of 1994 (10 VSA Chapter 8) calls for the development of a comprehensive GIS strategy for Vermont, and established the Vermont Center for Geographic Information, Inc.

§ 122. VERMONT CENTER FOR GEOGRAPHIC INFORMATION, INCORPORATED; ESTABLISHMENT

(a) The State of Vermont shall support a comprehensive strategy for the development and use of a geographic information system. . .

In order to develop and implement that strategy, and to ensure that all data gathered by state agencies that is relevant to the VGIS shall be in a form that is compatible with, useful to, and shared with that geographic information system, there is hereby established a nonprofit public corporation to be known as the Vermont center for geographic information, hereinafter called the center, as a body corporate and politic and a public instrumentality of the state.

§ 126. REPORTS AND AUDITS

On or before January 15 of each year, the center shall prepare and submit to the governor a three-year work plan which describes the goals, objectives and activities of the center and cooperating state agencies and other public and private organizations. The plan also should include estimated cost of each major activity of the center, and a report concerning data gathered, documents generated, and problems and opportunities for use of VGIS information.

10 VSA 126 require that *"The books of account of the center shall be audited annually and a report filed with the secretary of administration not later than October first of each year."*

A full set of the Financial Statements are available from VCGI, contact David Brotzman, Executive Director.

VERMONT CENTER FOR GEOGRAPHIC INFORMATION, INC.

STATEMENTS OF ACTIVITIES
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011

REVENUE	2012	2011
State of Vermont grant	$378,700	$408,700
Project income	$729,245	$797,448
Imagery program income	$1,110	$16,285
Reproductions and resale of items	-	-
Interest and miscellaneous income	$17,765	$6,034
Annual Conference income	$4,200	$3,309
Insurance recovery	$32,337	-
TOTAL REVENUE	$1,163,357	$1,231,776
DIRECT COSTS		
Direct Labor	$195,655	$213,345
Payroll taxes and employee benefits	$88,396	$94,375
Cost of imagery program	$1,793	$14,638
Cost of outreach	$20,893	$11,554
Costs of projects and reproductions	$45,635	$26,067
Subcontract costs	$469,545	$493,391
TOTAL DIRECT COSTS	$821,917	$853,370
OPERATING EXPENSES		
Indirect salaries and wages	$158,880	$151,535
Payroll taxes and employee benefits	$70,231	$64,248
Rent	$30,184	$29,592
Depreciation	$9,695	$13,474
Loss on disposal of fixed assets	$13,621	-
Computer support and maintenance	$20,289	$21,087
Professional Fees	$12,182	$9,732
Travel and Training	$8,471	$9,758
Office Expense	$14,318	$11,992
Utility Expense	$2,273	$4,392
Insurance	$3,953	$4,160
Miscellaneous	$1,019	$535
Flood Recovery Expenses	$7,115	-
Telephone Expense	$3,227	$3,346
TOTAL OPERATING EXPENSES	$355,458	$323,851
TOTAL DIRECT & OPERATING EXPENSES	$1,177,375	$1,177,221
CHANGE IN NET ASSETS	($14,018)	$54,555

VERMONT CENTER FOR GEOGRAPHIC INFORMATION, INC.

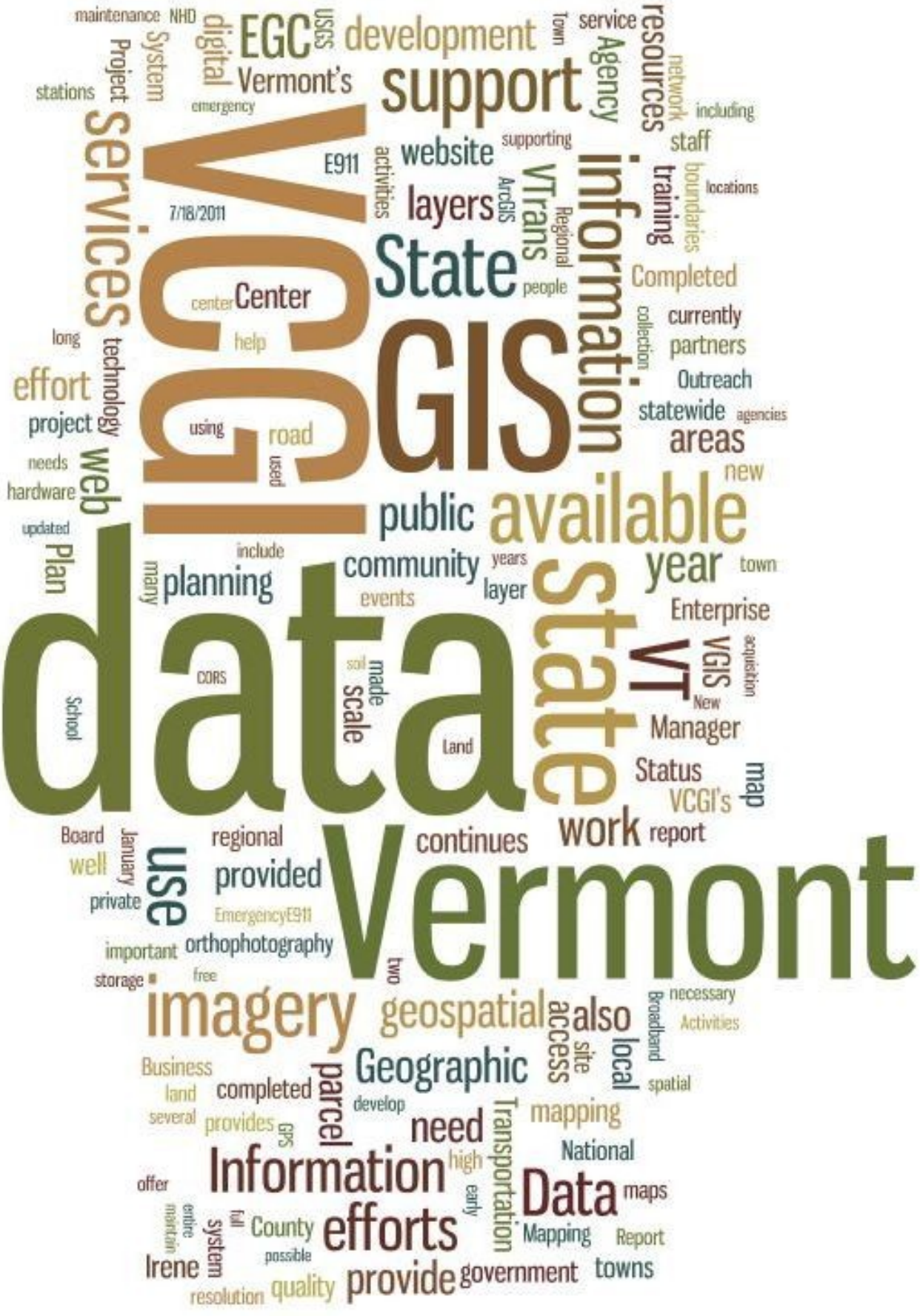
STATEMENTS OF FINANCIAL POSITION
JUNE 30, 2012 AND 2011

ASSETS	2012	2011
CURRENT ASSETS		
Cash - undesignated	$131,622	$163,721
- capital reserve	$30,000	$30,000
Accounts receivable	$39,688	$32,454
Unbilled receivable	$50,559	$79,249
Prepaid expenses	$10,773	$18,778
TOTAL CURRENT ASSETS	$262,642	$324,202
PROPERTY AND EQUIPMENT, NET	$41,373	$17,253
TOTAL ASSETS	$304,015	$341,455
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts payable	$1,023	$133
Accrued expenses	$51,990	$74,744
Accrued wages	$13,048	$13,203
Accrued vacation	$14,230	$13,924
NAIP Funds Collected in Advance	-	$100
Deferred project income	$273	$1,882
TOTAL CURRENT LIABILITIES	$80,564	$103,986
TOTAL LIABILITIES	$80,564	$103,986
NET ASSETS		
Unrestricted - Board designated for capital reserve	$30,000	$30,000
Unrestricted - Undesignated	$193,451	$207,469
TOTAL NET ASSETS	$223,451	$237,469
TOTAL LIABILITIES AND NET ASSETS	$304,015	$341,455

VERMONT CENTER FOR GEOGRAPHIC INFORMATION, INC.

BUDGETS
FY 2013 AND PROPOSED FY 2014

	FY13 Budget	FY14 Budget (Proposed)
INCOME		
State of VT Grant	$378,700	$378,700
Project Income	$821,652	$810,000
Imagery Income	$ 1,000	$ 2,000
Interest & Miscellaneous Income	$ 1,100	$ 2,000
Other Income	$ 10,500	$ 9,000
TOTAL INCOME	**$1,212,952**	**$1,201,700**
DIRECT COSTS		
Direct Labor	$220,158	$223,569
Payroll Taxes & Benefits	$100,043	$104,163
Project Costs	$ 44,310	$ 50,000
Imagery Program Costs	$ 9,100	$ 21,000
General Direct Costs	$ 18,000	$ 18,000
Outreach Costs	$ 14,700	$ 15,500
Subcontract Costs	$563,940	$400,000
DIRECT COSTS	**$970,251**	**$832,232**
OPERATING COSTS		
Indirect Salaries & Wages	$137,316	$140,583
Payroll Taxes & Benefits	$ 53,870	$ 56,988
Rent	$ 30,800	$ 31,693
Depreciation	$ 19,333	$ 10,575
Computer Support & Maintenance	$ 15,748	$ 23,500
Insurance	$ 4,372	$ 4,500
Professional Fees	$ 17,000	$ 52,250
Travel & Training	$ 9,500	$ 22,500
Office Expense	$ 11,424	$ 16,500
Utility Expense	$ 4,000	$ 4,500
Miscellaneous Expense	$ 500	$ 500
Telephone Expense	$ 3,000	$ 3,200
TOTAL OPERATING COSTS	**$306,863**	**$367,289**
NET INCOME(LOSS)	**$ (64,162)**	**$ 2,179**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