

Appendix F

Office of Community Conservation



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1 Office of Community Conservation

1.1 Agency Overview

The mission of the Office of Community Conservation (OCC) is to preserve, stabilize, and enhance the human, physical, and economic condition of the County's urban communities through cooperative public-private programs which address specific neighborhood concerns, and empower communities by fostering local self-reliance.

The Office is responsible for coordinating programs, policies, and capital improvements projects in Community Conservation Areas. The emphasis is on implementation strategies such as community empowerment, public/private partnerships, and coordination of public/private action. In addition to urban residential neighborhoods, Community Conservation Areas include commercial revitalization areas and commercial corridors, and are identified in the Baltimore County Master Plan 2010. Funding is provided from the County's operating budget, the County's 6-Year Capital Improvement Program, State of Maryland, and Federal Community Development Block Grant (CDBG) and Home Investment Partnerships Programs (HOME).

The Office is comprised of five major components: Sector Coordination, Housing Opportunities, CDBG Grants Administration, Commission on Disabilities, and County Funded Grants.

Community Development and Sector Coordination

Community Development and Sector Coordination is provided by five sector coordinators under the direction of the Director of the Office of Community Conservation. They work with local community associations, business groups, institutions, and non-profit organizations to ensure that defined community priority needs are met in a timely and cost-effective manner.

The County is divided into five sectors: Southwest, Northwest, Central, Northeast, and Southeast. Each coordinator is assigned to a specific sector. The coordinators serve as Project Managers and work closely with the Administration and County Council members to ensure that the full range of County resources and skills are brought together to implement specific projects.

These specific projects focus on community-based solutions and are included in the U.S. Department of Housing and Urban Development's (HUD) mandated County's Consolidated Plan 2007-2011, which details how the County will use local and State resources, as well as funds from the Community Development Block Grant Program (CDBG), the HOME Investment Partnerships Program (HOME), and Emergency Shelter Grant (ESG).

Several community and business organizations are supported each year through operating grants in order to provide services within multi-family housing communities and along commercial corridors. These grants are monitored by the sector coordinators and are intended to provide initial support for these groups.



Housing Opportunities

The overall objective of the Housing Opportunities Program is to improve housing stock and preserve neighborhoods by working with community based organizations, creating homeownership opportunities, assisting homeowners to bring their residences up to Baltimore County codes and standards, and to stimulate the development and redevelopment of high quality multifamily housing for County renters. This includes the following types of activities:

- Increasing access to homeownership, in particular, assisting first-time low-to-moderate income homebuyers to purchase existing homes within the community conservation areas;
- Increasing the availability of affordable and workforce housing within existing older communities;
- Creating housing opportunities for populations with special needs, including the elderly, people with disabilities and households of low or fixed income;
- Building and increasing community-based capacity to acquire and rehabilitate existing housing as part of a community-based redevelopment strategy;
- Promoting the use of sustainable design and green housing techniques in the construction of and the rehabilitation of affordable housing;
- Promoting maintenance of the current supply of decent, affordable, assisted housing within the context of stable, well-maintained, and well-serviced neighborhoods;
- Promoting full utilization of all existing subsidies, including Housing Choice Vouchers;
- Providing opportunities for economic self-sufficiency and asset development needed to empower assisted housing program participants; and
- Promoting fair housing and equal opportunity in housing.

Community Development Block Grant Program

CDBG Grants Administration provides for the appropriation of entitlement funds awarded to Baltimore County from Federal and State housing and community development programs, such as the Community Development Block Grant (CDBG) Program, the HOME Investment Partnerships (HOME) Program, and the Stewart B. McKinney Emergency Shelter Grant (ESG) Program funded under the U.S. Department of Housing and Urban Development (HUD), and the Homeless Prevention Program, Emergency and Transitional Housing Services, and Homeless Women's Services funded under the Maryland State Department of Housing and Community Development (DHCD). These grant programs are primarily designed to benefit low and moderate-income households and individuals through various activities carried out by public agencies and non-profit organizations, such as housing rehabilitation, home ownership assistance, drug and alcohol counseling, fair housing, education and counseling services to the homeless and at-risk, capital improvements for community-based facilities and public infrastructure, and programs which benefit the disabled.

The Baltimore County Commission on Disabilities

The goals of the Commission on Disabilities are to achieve an effective and systematic delivery of public, private, and consumer resources to all people with disabilities in the County; to identify the



strengths and weaknesses in programs, services, and resources available to citizens with disabilities; and to propose the means whereby the needs of citizens with disabilities can be met.

County Funded Grants

County Funded Grants to Community and nonprofit Organizations are a large component of the Office's operating budget. The Community Conservation Action Grant Program allocates \$100,000 in County funds for community-based physical improvement projects. A matching grant from the Harry and Jeanette Weinberg Foundation to supplement this program has been provided in previous years, and it will be continued in FY 2007. The Community projects require a 25% contribution from the sponsoring organization that can consist of cash, donated materials or services, and/or volunteer labor. Projects are limited to communities within the Community Conservation Areas. The Weinberg Grants are further limited to low-income communities that would be eligible for Federal programs.

Administrative/Service grants are for the provision or purchase of services, the development of studies or plans, for operating costs to assist nonprofit groups in Community Conservation Areas and to supplement funds obtained from other sources. It is anticipated that these programs will continue at the same levels for FY 2007, since they play an important role in the mission and goals set by Baltimore County for the Community Conservation effort.

The following programs relating to this study are managed by the Office of Community Conservation:

- Community Planning and Development, Revitalization Projects
- UDAT Project Management

1.2 Agency Public Access Programs

OCC provides a small amount of static information related to community activities and available assistance available within the county to the public on the county's web site. This information focuses on specific funding programs and areas of the county, and includes several static maps.

1.3 Agency Study Participants

Agency personnel contributed to the study by completing the short form online survey, participating in interviews, and providing miscellaneous data to support information provided throughout the report.

Two OCC staff members completed the online short form survey, which was used to determine each person's role within the department and determine if these individuals were using GIS to support their activities. Each of the short form responses has been included in the appendix of this document. The following personnel completed the online short form survey:



| Short Form Respondents |
|-------------------------------|
| Joseph A. 'Jay' Doyle IV |
| Liz Glenn |

Table 1 - Short Form Respondents

A total of three OCC staff participated in interviews conducted on November 6, 2006. These individuals are:

| Interviewees |
|--------------------------|
| Joseph A. 'Jay' Doyle IV |
| Katy Kendrick |
| Liz Glenn |

Table 2 – Interviewees



2 Cost/Benefit Information

This section outlines the annual costs and benefits that are associated with GIS use and maintenance within OCC. The total benefits and costs have been summarized in the table below, which are discussed in further detail in the remainder of this section.

| Summary – Total Annual GIS Benefits | |
|--|--------------------|
| Time Benefits: | \$24,342.17 |
| Other Benefits: | \$0 |
| Total Annual Benefits: | \$24,342.17 |
| Summary - Total Annual GIS Costs | |
| Total Annual Costs: | \$21,091.97 |
| Summary - Total GIS Cost/Benefit | |
| Total GIS Cost/Benefit: | +\$3,250.20 |

Table 3 – Annual Agency Cost and Benefit Summary

This table only includes benefits that are associated with capital returns and does not consist of other benefits such as more accurate information, faster response times, etc. A detailed review of all qualitative benefits realized by GIS users will be documented and analyzed in the Enterprise volume of the report.

2.1 Annual Agency Cost

OCC does not contribute significantly to the cost of supporting the Enterprise GIS for Baltimore County. This agency does not maintain any GIS datasets, has almost no related operational costs, and supports only four GIS users. The total annual agency cost to support all of these elements is \$21,091.97.

| |
|---|
| Total Agency GIS Cost: \$21,091.97 |
|---|

Details of each of the cost issues are discussed in the sections below.

2.1.1 Annual Operational Costs

OCC does not support any external training for its staff members at this time. All training is performed in-house at no additional cost to the agency.



| Type of Training | Estimated Cost | # of Staff Attending | Total Annual Cost |
|----------------------|----------------|----------------------|-------------------|
| No external training | \$0 | | \$0 |

Table 4 – Annual GIS Training Costs

OCC has GIS related administrative and supply expenses to include supporting the plotter and its related expenditures each year as follows:

| Administrative/Supply Items | Annual Costs |
|--|-----------------|
| Administrative Costs | \$418.00 |
| Supplies and Materials | \$282.00 |
| Total Administrative/Supply Cost: | \$700.67 |

Table 5– Agency Administrative/Supply Costs

2.1.2 Annual Resources (GIS Staff)

The agency currently contains two staff members that use GIS, but neither performs maintenance or technical support activities.

| GIS Personnel | % Allocated to GIS Maintenance Activities |
|---|---|
| No personnel perform GIS maintenance activities | 0% |
| Total GIS Personnel Cost: | \$0 |

Table 6 – Annual GIS Personnel Costs

2.1.3 Annual Enterprise Costs

Each of the costs for providing the enterprise GIS has been totaled for the county and distributed among each of the county agencies relative to the number of users in each agency. These costs have been categorized as operating cost, or the cost that is expended to provide GIS support and resources (such as database management, infrastructure, software licensing etc.), and capital costs, which reflect the cost of purchasing the GIS data (such as Orthophotography or Contours). The total annual operating cost for the County GIS enterprise is \$859,717.21 and the total annual capital cost is \$272,000.00. OCC has a small number of GIS users - only four (or 1.80% of the total users in the county). Annual enterprise costs have been proportionately distributed to OCC based on this 1.80% factor. These costs are calculated as \$15,490.40 in operating costs and \$4,900.90 in capital costs, totaling \$20,391.30. Each of these figures has been provided in the table below.



| # of Users | % of Total Users | Factor of Operating Cost Applied to Agency | Factor of Capital Cost Applied to Agency | Total Annual Enterprise Cost Applied to Agency |
|------------|------------------|--|--|--|
| 4 | 1.80% | \$15,490.40 | \$4,900.90 | \$20,391.30 |

Table 7 – Annual Enterprise GIS Costs

2.2 Agency Benefit Assessment

GIS is used within OCC to support a variety of activities and it has been used for several years. Some OCC employees use GIS as a tool to support decision-making and other employees benefit from and utilize GIS products. When asked about accomplishing the activities that OCC is responsible for without the benefit GIS, the interviewees noted that the county would not be able to accomplish them effectively without GIS. However, OCC could use GIS more effectively to support their programs and activities.

2.2.1 Existing GIS Benefits

The existing benefits realized by OCC have been determined for each activity by analyzing the effort needed to perform a task with GIS in comparison to the time spent without GIS. This examination allows each activity to be measured in terms of time, which has been then recomputed to dollars that are realized annually. Each of the existing benefits that is currently being realized has been summarized by program below and has been aggregated to give an annual dollar figure. These benefits are discussed in more detail in section 4. All dollar amounts are based on a flat rate of \$33.95 per hour.



| Program | Community Planning and Development, Revitalization Projects |
|-------------------------|---|
| Description | <p>OCC oversees the management of numerous Federally and State funded grant programs and entitlement programs as well as redevelopment and revitalization programs. Grant programs include the following:</p> <ul style="list-style-type: none"> • Community Development Block Grant (CDBG) Program • HOME Investment Partnerships (HOME) Program • Stewart B. McKinney Emergency Shelter Grant (ESG) Program • Homeless Prevention Program • Emergency and Transitional Housing Services • Homeless Women’s Services <p>These grant programs are primarily designed to benefit low and moderate-income households and individuals through various activities carried out by public agencies and non-profit organizations, such as housing rehabilitation, home ownership assistance, drug and alcohol counseling, fair housing, education and counseling services to the homeless and at-risk, capital improvements for community-based facilities and public infrastructure, and programs which benefit the disabled.</p> |
| Activities | <ul style="list-style-type: none"> • Community Conservation Areas • Community Development Block Grant Program (Redevelopment) • Consolidated Plan • Harbor Team Project Development • Homeless Management Information System (Integration) • Revitalization Support |
| Time Benefits (Annual) | \$18,231.16 (537.0 hours) |
| Other Benefits (Annual) | \$0 |
| Total Benefits | \$18,231.16 |



| Program | UDAT Project Management |
|-------------------------|---|
| Description | <p>OCC provides project management for four large-scale community planning projects involving a UDAT that have been initiated since 2001. OCC has taken the lead responsibility, in conjunction with the Office of Planning. These projects have been undertaken in Dundalk, Randallstown, Essex-Middle River, and Towson. GIS resources are used extensively in preparing a community to host a UDAT, in outreach efforts to involve the community, and during the one-week visit by the team. Also, the UDAT planning paradigm results in long term visionary plans that are implemented over many years, some projects sooner than others. OCC uses GIS resources very often in evaluating UDAT recommendations and developing more refined data concerning property ownership, topography, water features, parcel square footage, etc. GIS is a critical component of successfully conducting a UDAT. 25% of OCC's GIS efforts are to support UDAT.</p> |
| Activities | <ul style="list-style-type: none"> • UDAT Project Management – Map Production • UDAT Project Management – Outreach Mailings • UDAT Project Management – Study Area Development |
| Time Benefits (Annual) | \$6,111.01 (180.0 hours) |
| Other Benefits (Annual) | \$0 |
| Total Benefits | \$6,111.01 |

Table 8– Existing GIS Benefits by Program



The table below summarizes the benefits realized from each of the programs presented above. These numbers represent the total hours and dollars that have been saved by the agency as a result of utilizing GIS.

| Total Annual GIS Benefits Summary | | | |
|--|------------------------|-----------------------------|----------------------------------|
| Time Benefits Summary (By Program): | Hours Saved | Labor Rate (Avg) | Annual Time Benefits |
| Community Planning and Development, Revitalization Projects | 537.0 | \$33.95 | \$18,231.16 |
| UDAT Project Management | 180.0 | \$33.95 | \$6,111.01 |
| | | | |
| Total Time Benefits: | 717.0 | \$33.95 | \$24,342.17 |
| Other Benefits Summary (By Program): | | | |
| | | | Annual Other Benefits |
| N/A | | | N/A |
| | | | |
| Total Other Benefits: | | | \$0.00 |
| Grand Total Annual Benefits: | | | |
| | \$24,342.17 | | |

Table 9 – Total Annual GIS Benefits



Each of the benefits for these programs has been depicted in the figure below, which provides a clear picture of the areas that are receiving the most benefits from GIS usage.

OCC GIS Benefits

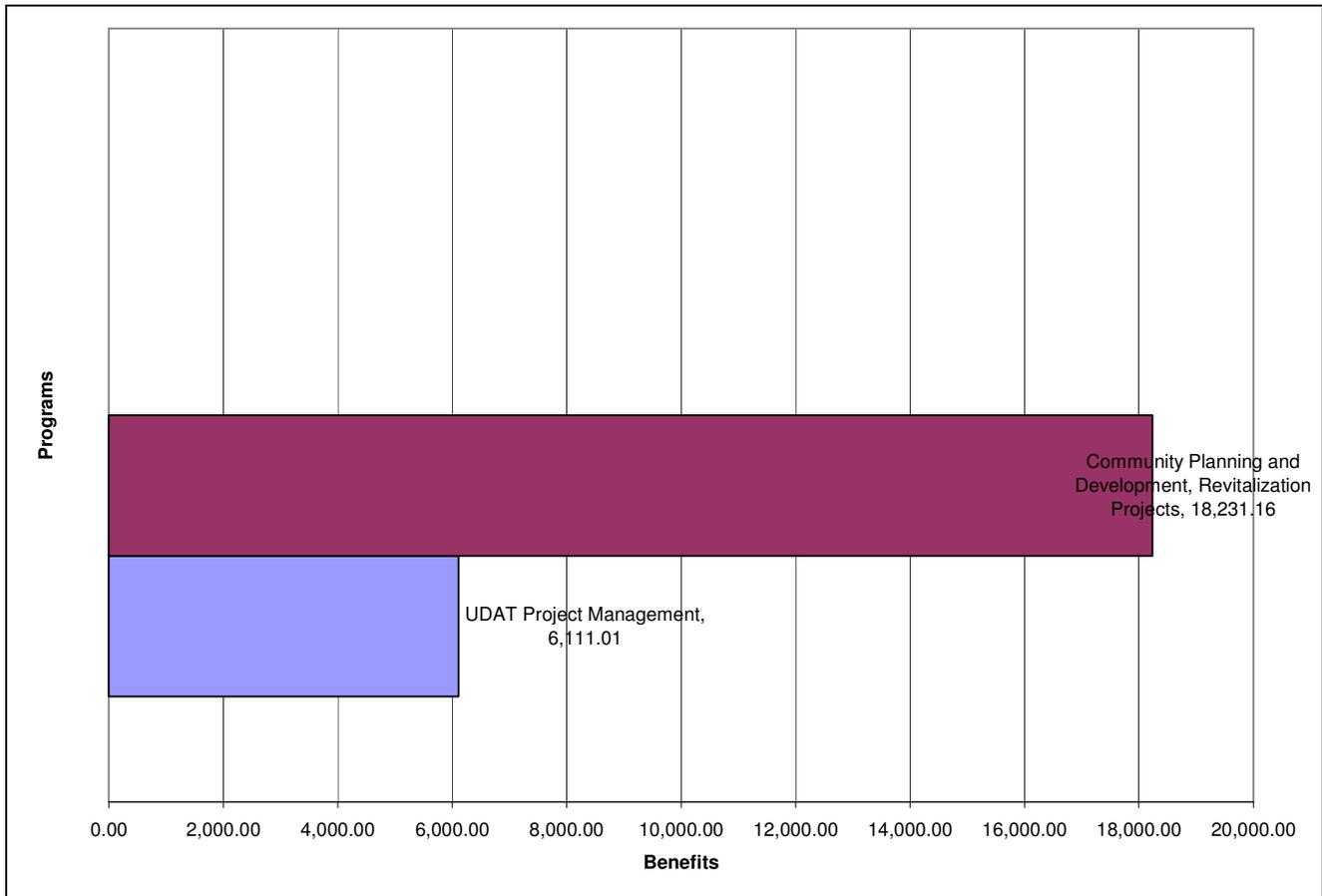


Figure 1 - OCC GIS Benefits by Program

The benefits realized by OCC are divided among several activities. The Community Planning and Development, Revitalization Projects program is the umbrella under which six activities fall. The two activities that contribute most to the total benefits are the Harbor Team Project Development and the Consolidated Plan. The remaining activities within OCC are relatively small and therefore have not seen as much benefit from GIS.



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3 GIS Utilization and Recommendations

3.1 GIS Utilization Analysis

GIS is used within OCC to support a variety of activities and it has been used for several years. Some OCC employees use GIS as a tool to support decision-making and other employees benefit from and utilize GIS products. When asked about accomplishing the activities that OCC is responsible for without the benefit GIS, the interviewees noted that the county would not be able to accomplish them effectively without GIS. However, OCC could use GIS more effectively to support their programs and activities.

OCC does not create or maintain its own data (specifically the Community Conservation Sectors layer) and relies on OIT for this support. However, this data layer is relatively static and does not change frequently. Additionally, during on-site UDAT charrettes, most of the GIS technical expertise is provided by staff from the Office of Planning. OCC provides resources that focus on on-site communication, including sound, staging, etc., and outreach. OCC staff recognize that they could use GIS more effectively to support their programs and activities if they had additional resources, including additional staff and GIS training. However, until such time as additional resources become available the agency prefers to maintain the current relationships with OIT and the Office of Planning for some of its GIS support.

3.1.1 GIS Personnel

OCC has a few GIS-trained personnel within the agency. Some OCC employees use GIS as a tool to support decision-making and other employees benefit from and utilize GIS map products. OCC has already invested in providing GIS training through OIT’s Computer Training Center for several of its staff. However, OCC could benefit from additional staff receiving training. Any further investment in training should be followed through with skill reinforcement and usage of the system to ensure the skills are transferred from the classroom to the business activity performed. The following shows a breakdown of the levels of training and the number of staff that have received training at that level:

| Basic Training (DataQuery, ArcView) | Mid-Level (ArcGIS Intro) | Advanced (ArcGIS 8x or higher) |
|--|-------------------------------------|---|
| 2 | | 2 |

Table 10 – GIS Training

3.1.2 GIS Data Usage

OCC uses a large number of the GIS datasets provided by OIT’s ArcSDE services via the County WAN. These datasets are used in a variety of ways. All of the programs and activities use approximately the same data layers. The data categories used by the department are summarized below. GIS data usage is discussed in more detail with each program in section 4.



| Data Used by All OCC Programs | |
|---|--------------------------------------|
| African American Survey Districts | Land Use 2002 |
| Athletic Fields | Landuse |
| Basic Services | Legislative Districts (2002) |
| Basic Services - Transportation (Intersections) | Light Rail |
| BCMD Grid | Master Plan - Sewer |
| Buildings | Master Plan - Water |
| Capital Projects | Metro Railroad |
| Census Block Groups (1990) | Metropolitan District Line |
| Census Block Groups (2000) | National Register Historic Districts |
| Census Blocks (1990) | Orthophoto (2002) |
| Census Blocks (2000) | Orthophoto (2005) |
| Census Designated Place (1990) | PAL Centers |
| Census Designated Place (2000) | Park Points |
| Census Tracts (1990) | Parks and Recreation |
| Census Tracts (2000) | Playgrounds |
| Chesapeake Bay Critical Area | Priority Funding Areas |
| Commercial Revitalization Districts | Publicly Owned Land |
| Community Associations | Regional Planning Districts |
| Community Conservation Sectors | Renaissance Opportunity Areas |
| Community Plans | Reservoir |
| Congressional Districts (2002) | Right of Way (LACQ) |
| Conservation Easements | School Districts - Elementary |
| Contours | School Districts - High |
| Councilmanic Districts (2002) | School Districts - Middle |
| County Boundary | Sewer Service Areas |
| County Facilities | Storm Water Management Facilities |
| County Historic Districts | Streams and Ponds |
| Design Review Panel Areas | Street Centerlines |
| Enterprise Zones | Street Centerlines (View) |
| Flood Insurance Maps (FEMA) | Tax Parcel |
| Forest Conservation Management Areas | Taxmaps (Images) |
| Historic Districts | Traffic Analysis Zones |
| Hydrology | Trails |
| Index Grid - 200 Scale (BCMD) | Trails - Walkways |
| Index Grid - 200 Scale (MCS) | Tree Cover |
| Index Grid - 600 Scale | Watersheds - Major |
| Index Grid - ADC Map | Wetlands |
| Index Grid - MrSID Tiles | Wetlands - NWI |
| Index Grid - Phase I | Wetlands - Special Area Management |
| Index Grid - Phase II | Wooded |
| Index Grid - Phase III | Zip Codes |
| Index Grid - VARGIS Orthophoto (1998) | Zoning |
| Index Grid - VARGIS Orthophoto (2000) | Zoning - 1999 |
| Land Management Areas | Zoning Overlay Districts |

Table 11- Data Usage



3.1.3 GIS Applications Usage

OCC has taken advantage of the applications provided by OIT. These applications appear to be effectively used by a few OCC staff members. ArcGIS (Standard) is the primary application that is used within OCC. ArcGIS version 9.0, service pack 3 (SP3) is the current County standard that is deployed throughout the various agencies. OCC appears to have appreciation for the power of GIS to support its mission and acknowledges that they could not accomplish their mission without it.

3.1.4 GIS Database Maintenance

OCC has primary responsibility for the Community Conservation Sectors data layer. However, OCC does not create or maintain its own data and currently relies on OIT for this support.

| Dataset | Description | Update Frequency | Location | Complete | Programs Using Data |
|--------------------------------|--|------------------|----------|----------|--|
| Community Conservation Sectors | Boundaries of the Community Conservation Areas | As needed | SDE | Yes | <ul style="list-style-type: none"> Community Planning and Development, Revitalization Projects UDAT Project Management |

Table 12 - Agency Data Maintenance

3.1.5 Assessment of Business Process with GIS

GIS is used across OCC programs and for most activities. GIS is used as a tool to support decision making and to create GIS map products. GIS involvement in each of these programs' business processes is discussed in the table below.



| Program | Business Process Assessment |
|---|--|
| Community Planning and Development, Revitalization Projects | <p>GIS is used to:</p> <ul style="list-style-type: none"> • Perform spatial analyses, • Create project-specific maps, • Supplement reports, • Create web pages that provide information to the public, and • Prepare outreach materials. <p>GIS analysis supports policy development, capital program recommendations, and grant application packages.</p> |
| UDAT Project Management | <p>GIS is used to:</p> <ul style="list-style-type: none"> • Perform spatial analyses, • Prepare targeted mailing lists, • Create project-specific maps, • Supplement reports, • Create web pages that provide information to the public, and • Create public presentations. <p>It is also used on-site during the UDAT to review options, prepare data to support decision-making, present options, etc.</p> |

Table 13 - GIS Integration with Business Processes, by Program

3.2 GIS Needs Assessment

3.2.1 Applications

No custom applications were identified as ones that need to be developed to support the business processes of OCC.

3.2.2 Data

There are several datasets that could be developed to support OCC’s needs. Some of these datasets are listed in the table below.

| Dataset | Programs That Could Benefit From Data |
|----------------------|--|
| Critical Area Buffer | <ul style="list-style-type: none"> • Community Planning and Development, Revitalization Projects • UDAT Project Management |

Table 14 - Datasets that Need to be Created

Many datasets are already being created and maintained by the GIS Enterprise, but are not complete or do not contain the information needed by users with the agency. The layer below could be completed to provide benefits to OCC:



| Dataset | Current Data Limitation | Activities That Could Benefit From Data |
|----------|--|---|
| Wetlands | Improved spatial accuracy of wetlands data is needed | <ul style="list-style-type: none"> • Harbor Team Project Development |

Table 15 - Datasets that Need Enhancement

3.2.3 Training

As part of a rollout strategy, most personnel would benefit from training on GIS data and applications that are specific to each program. This training would include an overview of how applications can be used to support business processes and data that could be useful to activities. This training would have to be preceded with a business process analysis, in order to determine how data and applications could be used and what gaps exist in GIS knowledge.

3.2.4 Best Practices

OCC could take advantage of best practices that have been implemented by other agencies or counties with similar business processes. These include:

- **Enhance Homeless Services**

GIS mapping and data analysis tools could enhance the county’s efforts to prevent homelessness and target delivery of resources. For example, GIS could be used to enhance the Homeless Management Information System to identify where homeless people “reside” and track shelters and shelter information to use for emergency management. Additionally, GIS could show concentrations and help OCC more effectively deploy eviction prevention services, utility assistance, homeless outreach teams, and efforts to engage school personnel in areas of homeless concentration.

- **Monitor Returns on Funding Investments**

GIS could be used to help measure the impact of redevelopment activities and Federal funding for housing. GIS could be used to spatially locate where and how the funds have been used and to evaluate whether real estate values and tax revenues have been affected as a result of these investments. Development of additional GIS data showing the locations of OCC projects and of households that have received housing grants would facilitate this initiative.

- **Enhance ADA Coordination**

GIS could be used to help identify locations of citizens who have made requests for access to county programs, services, and activities and help identify needs regarding services as well as accessibility of county-owned and other public facilities.

- **Identify Gaps in Program Coverage**

GIS could be used to ensure adequate coverage of human and social services that are funded through OCC programs and to help determine what areas are underserved.



3.2.5 Communication and Agency Coordination

By expanding the number of GIS users within OCC, this agency could make better use of GIS. Currently, GIS requests are funneled through a limited number of staff. These users know how important GIS is to the agency and are advocates for its use and expansion. As more staff are exposed to GIS on a daily basis, they will come to realize its benefits to them in their daily activities and will be able to make recommendations for improvements to data layers and/or business processes.

OCC supports programs and activities that have similar missions to several other agencies within the county, including the Department of Economic Development, Office of Planning, Department of Health, Department of Aging, and the Department of Social Services. The needs for spatial data that are common to multiple agencies should be coordinated to ensure that new data layers can best serve the greatest number of users.

OCC and the Office of Planning already collaborate effectively on UDAT activities, sharing responsibilities for various pre-UDAT, on-site, and post-UDAT functions. OCC typically provides pre-UDAT planning including development of the study boundary; pre-UDAT mailings to all affected citizens and businesses; on-site facilities management, coordination and communication; and post-UDAT map and presentation production. The Office of Planning provides on-site GIS support as well as additional follow-on activities.

3.3 Recommendations

OCC could further benefit from GIS in several ways. This section outlines recommendations that can be implemented in the short-term and mid-term to enhance the agency's GIS usage and further take advantage of the enterprise system provided by the county. These will in turn reduce time and money spent on activities performed by OCC and increase the level of service provided to customers.

3.3.1 Short-term Recommendations & Potential Benefits

There are several undertakings that should be implemented in the near term to improve GIS usage within the agency and meet the needs that were outlined in the previous section. These recommendations are categorized by activities that can be quickly deployed with little effort and by activities that require a greater investment but are greatly needed. Each of these recommendations are discussed below. See section 4 for more detailed recommendations to support individual activities.

3.3.1.1 Quick Deployment

The following recommendations have the potential to provide additional benefits to the agency and can be implemented with few additional resources:



Opportunity 1: Provide Focused GIS Training for Key OCC Staff

| Opportunity 1: Provide Focused GIS Training for Key OCC Staff | |
|--|---|
| Description: | As resources within the agency allow, OCC's GIS specialist(s) and identified key staff could benefit from additional training that would allow them to perform more sophisticated analyses and better support the agencies programs and activities. The training should be focused on how GIS could better support the agency's business processes and should include specific GIS activities that can support business processes. |
| Software Requirements: | Enterprise ArcGIS licenses DataQuery (optional) |
| Hardware Requirements: | GIS Computers |
| Data Requirements: | None |
| Training Requirements: | In-house training |
| Timeframe: | 6 months |
| Additional Costs: | None |
| Potential Benefits: | Benefits would be realized through improving the ability of OCC staff to perform spatial analyses that would better support their programs and activities. GIS is already used for many of these activities, but could be used to enhance the agency's business processes. No quantifiable time benefits would be realized, but existing activities would be improved and new activities could be undertaken. Total Benefits: \$0 per year |
| Qualitative Benefits: | In addition to providing additional resources that OCC can draw on for day to day activities, providing additional training should allow OCC to participate more fully in the GIS what-if scenarios that take place during the on-site UDAT charrettes. |

Table 16- Opportunity 1: Provide Focused GIS Training for Key OCC Staff



Opportunity 2: Maintain Community Conservation Sectors Data Layer In OCC

| Opportunity 2: Maintain Community Conservation Sectors Data Layer In OCC | |
|---|---|
| Description: | Once additional training has been provided to OCC staff, and as agency resources allow, OCC should take over the data maintenance from OIT for the Community Conservation Sectors data layer. Ownership and responsibility for maintenance of the layer quality, accuracy, and metadata would enhance the value of the layer in the enterprise. |
| Software Requirements: | Enterprise ArcGIS licenses |
| Hardware Requirements: | GIS Computers |
| Data Requirements: | None |
| Training Requirements: | None |
| Timeframe: | 6 months |
| Additional Costs: | None |
| Potential Benefits: | No quantifiable time benefits would be realized through transferring maintenance of this data layer from OIT to OCC, since this activity is currently being performed, occurs infrequently, and needs to continue to be performed. Total Benefits: \$0 per year |
| Qualitative Benefits: | OCC would more fully participate in the maintenance of a data layer for which it is responsible, without having to request assistance on this activity from another department. |

Table 17- Opportunity 2: Maintain Community Conservation Sectors Data Layer In OCC

3.3.1.2 Additional Investment Opportunities

The following recommendations have the potential to provide additional benefits to the agency and can be implemented with few additional resources:

Opportunity 1: OCC Project Locations Geodatabase

An OCC Project Locations Geodatabase should be developed to support the research and analysis needed by OCC. This geodatabase should represent the locations of OCC projects including UDAT Study Areas, Harbor Team Project study locations, locations of revitalization projects, and locations of households that have received housing grants. Each feature should be



represented as a point or a polygon, as appropriate, and should have information associated as attributes and/or linked from an existing database that would identify the project's description, status, funding, critical dates, etc. This geodatabase would have a simple design, would be stored in SDE and could be used for reference by other agencies within the county. Benefits of developing this geodatabase would include that areas of project overlap between agencies could be more easily visualized.

Opportunity 2: ADA Request Feature Class

A feature class that represents the spatial location of citizens who have made requests for access to county programs, services, and activities should be developed. Each feature should be represented as a point, and its spatial location could be easily derived by geocoding against the Address Point data layer in the enterprise Facilities Geodatabase. Features should have information associated as attributes and/or linked from an existing database for items such as type of request, date of request, type of disability, etc. This feature class would allow OCC to track requests by location, see areas of concentration, help identify needs, and align services or deploy resources to specific areas. Additionally, it could allow OCC to evaluate accessibility of county-owned and other public facilities in proximity to requesters. Once the locations of requesters can be seen relative to features such as ADA ramps, public transportation, etc., OCC can work towards better serving its disabled constituents. Other county agencies, such as The 911 Center, Police, Fire, Aging, and Social Services could also make use of this type of information.

3.3.2 Mid-term Recommendations & Potential Benefits

There are several undertakings that can be implemented in the mid-term to improve GIS usage within the agency. These are summarized below. See section 4 for more detailed recommendations to support individual activities.

Opportunity 1: Homeless Services Geodatabase

A Homeless Services Geodatabase should be developed to support the research and analysis needed by OCC, particularly its homeless coordinator and the manager of the Homeless Management Information System (HMIS). Development of this geodatabase should be coordinated with other relevant agencies such as the Office of Planning, Department of Health, Department of Aging, and the Department of Social Services.

OCC currently maintains data on 4,710 homeless individuals. The last permanent address of these individuals should be geocoded using the enterprise Address Points feature class contained in the Facilities Geodatabase. Additionally, polygons representing areas of concentration where the homeless currently reside and locations of other relevant activities such as day laborer sites could also be included. Each feature should have information associated as attributes and/or linked from existing databases. Information already contained in the enterprise Facilities geodatabase such as locations of homeless shelters (both permanent and seasonal), emergency housing, and locations of other support service facilities coupled with a



spatial representation of the concentrations of homeless individuals would allow OCC staff to more effectively deploy services to the homeless population including eviction prevention services, utility assistance, homeless outreach teams and efforts to engage school personnel in areas of homeless concentration.



4 Programs and Activities

Each of the interviews conducted with agency officials and personnel were used to compile information about the business processes used for each program within the agency, as well as look at how GIS is being used and benefits are being realized.

Each program is described below, listed with GIS-related funding and mandates, as well as any social or political benefits that are being seen as a result of using GIS. The associated products, customers served, and data/ applications used are also discussed. Activities have also been included under their associated programs, along with the process with and without GIS used to complete this activity, benefits that have been realized, and recommendations for additional GIS implementation where appropriate.



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4.1 Community Planning and Development, Revitalization Projects

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| Program: Community Planning and Development, Revitalization Projects |
| Primary Point of Contact: |
| Katy Kendrick, Jay Doyle |
| Overview: |
| <p>OCC oversees the management of numerous Federally and State funded grant programs and entitlement programs as well as redevelopment and revitalization programs. Grant programs include the following:</p> <ul style="list-style-type: none"> • Community Development Block Grant (CDBG) Program • HOME Investment Partnerships (HOME) Program • Stewart B. McKinney Emergency Shelter Grant (ESG) Program • Homeless Prevention Program • Emergency and Transitional Housing Services • Homeless Women’s Services <p>These grant programs are primarily designed to benefit low and moderate-income households and individuals through various activities carried out by public agencies and non-profit organizations, such as housing rehabilitation, home ownership assistance, drug and alcohol counseling, fair housing, education and counseling services to the homeless and at-risk, capital improvements for community-based facilities and public infrastructure, and programs which benefit the disabled.</p> |
| Funding: |
| <p>Baltimore County has been designated by the U. S. Department of Housing and Urban Development as an entitlement jurisdiction for the Community Development Block Grant (CDBG) Program and the Stewart B. McKinney Emergency Shelter Grant (ESG) Program, and a participating jurisdiction for the Home Investment Partnerships (HOME) Program. In accordance with these designations, Baltimore County is expected to have available \$8,265,310 to address the priority needs identified in the strategic plan during the program period beginning July 1, 2007. These revenues, a combination of entitlement block grants and program income, are as follows: In accordance with these designations, Baltimore County is expected to have available \$11,848,694 to address the priority needs identified in the strategic plan during the program period beginning July 1, 2007. These revenues, and corresponding expenditure authorizations, represent the sum of federal entitlement block grants, State grant awards, and program income (that represents the repayment of Housing Rehabilitation loans and loans associated with the Settlement Expense Loan Program).</p> |



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| Mandates: |
| <ul style="list-style-type: none"> • CDBG: As an entitlement jurisdiction receiving CDBG funds the county must certify that it will comply with the federal regulations found at 24 CFR Part 570. • Consolidated Plan: The Consolidated Plan is a strategic planning process that results in a plan that is submitted to HUD for approval. The Consolidated Plan is authorized under 24CFR Part 91 and states that any jurisdiction receiving federal entitlement funds must prepare a strategic plan to identify needs and priorities for spending the entitlement funds. The plan is a five-year strategy for directing resources to low to moderate-income communities, households, and housing units. |
| Political Benefits: |
| <ul style="list-style-type: none"> • Settlement Expense Loan Program for first-time homebuyers is available to people purchasing in the community conservation areas • CDBG awards are made in areas that meet HUD income requirements • Planning activities are targeted to areas of greatest need • Community leaders are involved in decision making surrounding the location of a new Port of Baltimore dredge material containment facility |
| Social Benefits: |
| <ul style="list-style-type: none"> • Aid is provided to first-time home buyers in Community Conservation Areas • Redevelopment in low- to moderate-income areas is fostered • Homeless shelters are provided in areas of most need • Community involvement in locating a new Port of Baltimore dredge material containment facility |
| Products/Services: |
| <ul style="list-style-type: none"> • Outreach mailings • Maps • Reports |
| Customers: |
| <ul style="list-style-type: none"> • Various County agencies • HUD • County Council • Community leaders • Non-profit organizations • Service agencies • Low-to moderate income communities, households, and housing units • Developers • Property owners • Harbor Team Officials • Consultants • Maryland Port Administration |



| Data (Enterprise Layers are Listed in Bold): | | |
|--|--|---|
| <ul style="list-style-type: none"> • African American Survey Districts • Athletic Fields • Basic Services • Basic Services - Transportation (Intersections) • BCMD Grid • Buildings • Capital Projects • Census Block Groups (1990) • Census Block Groups (2000) • Census Blocks (1990) • Census Blocks (2000) • Census Designated Place (1990) • Census Designated Place (2000) • Census Tracts (1990) • Census Tracts (2000) • Chesapeake Bay Critical Area • Commercial Revitalization Districts • Community Associations • Community Conservation Sectors • Community Plans • Congressional Districts (2002) • Conservation Easements • Contours • Councilmanic Districts (2002) • County Boundary • County Facilities • County Historic Districts • Design Review Panel Areas • Enterprise Zones | <ul style="list-style-type: none"> • Flood Insurance Maps (FEMA) • Forest Conservation Management Areas • Historic Districts • Hydrology • Index Grid - 200 Scale (BCMD) • Index Grid - 200 Scale (MCS) • Index Grid - 600 Scale • Index Grid - ADC Map • Index Grid - MrSID Tiles • Index Grid - Phase I • Index Grid - Phase II • Index Grid - Phase III • Index Grid - VARGIS Orthophoto (1998) • Index Grid - VARGIS Orthophoto (2000) • Land Management Areas • Land Use 2002 • Landuse • Legislative Districts (2002) • Light Rail • Master Plan - Sewer • Master Plan - Water • Metro Railroad • Metropolitan District Line • National Register Historic Districts • Orthophoto (2002) • Orthophoto (2005) • PAL Centers • Park Points | <ul style="list-style-type: none"> • Parks and Recreation • Playgrounds • Priority Funding Areas • Publicly Owned Land • Regional Planning Districts • Renaissance Opportunity Areas • Reservoir • Right of Way (LACQ) • School Districts - Elementary • School Districts - High • School Districts - Middle • Sewer Service Areas • Storm Water Management Facilities • Streams and Ponds • Street Centerlines • Street Centerlines (View) • Tax Parcel • Taxmaps (Images) • Traffic Analysis Zones • Trails • Trails - Walkways • Tree Cover • Watersheds - Major • Wetlands • Wetlands - NWI • Wetlands - Special Area Management • Wooded • Zip Codes • Zoning • Zoning - 1999 • Zoning Overlay Districts |
| Applications Used: | | |
| <ul style="list-style-type: none"> • ArcGIS (Standard) • ESRI Extensions | | |



Associated Activities:

- 4.1.1 Community Conservation Areas
- 4.1.2 Community Development Block Grant Program (Redevelopment)
- 4.1.3 Consolidated Plan
- 4.1.4 Harbor Team Project Development
- 4.1.5 Homeless Management Information System (Integration)
- 4.1.6 Revitalization Support



4.1.1 Agricultural Industry Support

| Activity: Community Conservation Areas | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Katy Kendrick | | | | | |
| Overview: | | | | | |
| The agency gives programming priority to "community conservation areas" which were first established in the early 1990s. These areas are currently mapped with a GIS layer. The community conservation areas are further segmented into "sectors," which are also delineated via GIS layers. The agency's Settlement Expense Loan Program for first-time homebuyers is only available to people purchasing in the community conservation areas. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Katy Kendrick, Jay Doyle, Liz Glenn | | | | | |
| Process with GIS: | | | | | |
| The Boundary Sectors were created in 1990 by the County via the Master Plan Process. These were produced to derive the Community Conservation Areas. Agency Boundaries and Sectors cover key housing areas. GIS is currently used to identify market areas as well as to track loans and grants and the values of each. OCC would like to use GIS more strategically for assessing impact areas. The Community Conservation Sectors data layer was created legislatively as part of the county's Master Plan (Director of Planning). These boundaries are used in county brochures and for hardcopy maps. It takes about 2 hours to make the maps; they are made twice a year. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult to make the maps manually, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating maps and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 5 | 2 | 3 | 2 | 6 | \$203.70 |
| Total Annual Benefits: \$203.70 | | | | | |



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| Areas for Improvement: |
| • Better use of GIS to assess impact areas. |
| New Opportunities: |
| None noted |
| Benefits of Pursuing New Opportunities: |
| None noted |



4.1.2 Community Development Block Grant Program (Redevelopment)

| Activity: Community Development Block Grant Program (Redevelopment) | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Katy Kendrick | | | | | |
| Overview: | | | | | |
| The office frequently uses GIS maps to review the location of its grant awards against U.S. Census tracts to ensure that grants are awarded in locations that meet HUD income eligibility requirements. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Katy Kendrick, Jay Doyle, Liz Glenn | | | | | |
| Process with GIS: | | | | | |
| OCC prepares between 10 and 20 maps annually to check potential grant-funded projects against the Census data for the tracts within which they are being proposed. This assists in confirming that the projects are serving low- to moderate-income communities/populations. The maps take about 3 hours each to make. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult to make the maps manually, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| <ul style="list-style-type: none"> • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating maps and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 112.5 | 45 | 67.5 | 1 | 67.5 | \$2,291.63 |
| Total Annual Benefits: \$2,291.63 | | | | | |
| Areas for Improvement: | | | | | |
| <ul style="list-style-type: none"> • GIS could be used to look at properties of recipients and applicants to see how the funds have been used and what has been the outcome of these funds on the real estate market, etc. • GIS could be used to look at Architecture Surveys (removing barriers from public facilities). | | | | | |
| New Opportunities: | | | | | |
| None noted | | | | | |



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| Benefits of Pursuing New Opportunities: |
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| None noted |
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4.1.3 Consolidated Plan

| Activity: Consolidated Plan | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Katy Kendrick, Liz Glenn | | | | | |
| Overview: | | | | | |
| The Office of Community Conservation develops a Consolidated Plan. The GIS is used to create display maps of the project locations that are incorporated into the Consolidated Plan. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Katy Kendrick, Liz Glenn | | | | | |
| Process with GIS: | | | | | |
| The Consolidated Plan is done every five years but there are annual updates called Annual Action Plans that are submitted in May of each year. The Action Plan details what activities are being proposed to meet the priorities identified in the Consolidated Plan. It usually takes anywhere from 8-16 hours to produce these maps. The maps are created to show the locations of proposed projects that are to be funded with federal entitlement funds. Typically, 5-10 maps have been created. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult to make the maps manually, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating maps and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 30 | 12 | 18 | 8 | 144 | \$4,888.80 |
| Total Annual Benefits: \$4,888.80 | | | | | |
| Areas for Improvement: | | | | | |
| <ul style="list-style-type: none"> • GIS could be used to measure the impact of targeting federal funds to housing efforts in specific areas of the county and to determine if values have been affected as a result of county investments. • GIS could be used to ensure adequate coverage of human and social services that are funded through OCC programs and to help determine what areas are underserved. | | | | | |



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| New Opportunities: |
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| None noted |
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| Benefits of Pursuing New Opportunities: |
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| None noted |
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4.1.4 Harbor Team Project Development

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| Activity: Harbor Team Project Development |
| Primary Point of Contact: |
| Jay Doyle |
| Overview: |
| Explore and articulate projects associated with the County's participation in the Harbor Options Team, a State of Maryland-sponsored committee charged with facilitating community involvement with the Port of Baltimore's Dredge Material Management Program. GIS is used frequently to perform the evaluations. The community enhancement projects are designed to offer benefits to ease the impact of the Port's interest in establishing a new dredge material containment facility in the environs of Baltimore County. |
| Interviewee(s) Providing Information: |
| Jay Doyle |
| Process with GIS: |
| The Harbor Options Team was officially formed in the spring of 2003 as a collaborative process through which solutions would be found to the Port of Baltimore's need to establish new dredge material containment facilities. The port's initial steps toward solving this problem – including a proposed facility in waters adjacent to Soller's Point in Baltimore County – created controversy and opposition among Baltimore County citizens. In response, the county executive successfully pursued a strategy in which the governor of Maryland formed a task force involving representatives of three jurisdictions, Baltimore City, Baltimore County, and Anne Arundel County. Jay Doyle of OCC serves as a county representative on this Task Force, called the Harbor Options Team. |
| Over a 16-month period between October of 2004 and February 2006, 33 maps were created to examine potential Harbor Team-related projects in the North Point community. About 11 distinct areas were examined, including about three maps of the same area that were produced to accommodate different views/scales/attributes. It takes 5 hours for each fresh map, and 1 hour for printing/formatting. Revisions to existing maps take 45 minutes to 2 hours to prepare. |
| Process without GIS: |
| Without GIS, it would be much more difficult to make the maps manually, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. |
| Benefits Assessment: (H, M, L) Identify confidence level |
| • Medium |
| Benefits to Using GIS for this Activity: |
| GIS saves time and money performing the analyses and creating maps and reports. |



| Annual Savings from Use of GIS: | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 15 | 6 | 9 | 25 | 225 | \$7,638.75 |
| Total Annual Benefits: \$7,638.75 | | | | | |
| Areas for Improvement: | | | | | |
| None noted | | | | | |
| New Opportunities: | | | | | |
| <ul style="list-style-type: none"> Reliable wetlands are needed | | | | | |
| Benefits of Pursuing New Opportunities: | | | | | |
| <ul style="list-style-type: none"> Improved maps and analysis | | | | | |



4.1.5 Homeless Management Information System (Integration)

| Activity: Homeless Management Information System (Integration) | | | | | |
|---|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Sandy Monck, Jay Doyle | | | | | |
| Overview: | | | | | |
| OCC employs a homeless coordinator as well as an individual who manages the county's Homeless Management Information System (HMIS). These positions oversee management of shelters for the homeless in the county and pursue strategies to prevent homelessness and help the homeless achieve self-sufficiency. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Sandy Monck, Liz Glenn | | | | | |
| Process with GIS: | | | | | |
| OCC currently maintains data on 4,710 homeless individuals. Geocoding and spatial analysis of the last permanent address of this population would offer several advantages. It would show concentrations and help OCC more effectively deploy eviction prevention services, utility assistance, homeless outreach teams and efforts to engage school personnel in areas of homeless concentration. OCC currently contracts with Bowman Systems, a contractor that provides information about homeless people and which of them is actually seeking services. The contract with Bowman Systems is for \$700,000 over 15 years. The contract includes maintenance of about 80 user licenses (will increase services), security, and confidentiality of data. OCC is currently not using GIS in-house for this activity. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| <ul style="list-style-type: none"> • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS is not currently used in-house for this activity. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| N/A | N/A | | | N/A | \$0 |
| Total Annual Benefits: \$0 | | | | | |



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| Areas for Improvement: |
| <ul style="list-style-type: none">• OCC’s homeless coordinator believes that GIS mapping and data analysis tools could greatly enhance efforts to prevent homelessness and target delivery/deployment of various resources.• GIS could enhance the Homeless Management Information System through homeless tracking – GIS could be used to identify homeless people and where they “reside” and track shelters and shelter information to use for emergency management.• GIS could show concentrations and help OCC more effectively deploy eviction prevention services, utility assistance, homeless outreach teams, and efforts to engage school personnel in areas of homeless concentration. |
| New Opportunities: |
| None noted |
| Benefits of Pursuing New Opportunities: |
| None noted |



4.1.6 Revitalization Support

| Activity: Revitalization Support | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Jay Doyle | | | | | |
| Overview: | | | | | |
| Revitalization of older communities is a core function of OCC and a top priority of Baltimore County government. GIS maps are frequently created to assist in developing and managing specific revitalization projects that are not directly relate to UDATs. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Jay Doyle | | | | | |
| Process with GIS: | | | | | |
| Approximately 6-12 maps per year are prepared, and it takes six hours per map and 1 hour for printing. The maps are prepared for use by Baltimore County agency personnel for both internal and external use/display. The maps are also occasionally used by developers/property owners. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult, or it would not be done. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating maps and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 17.5 | 7 | 10.5 | 9 | 94.5 | \$3,208.28 |
| Total Annual Benefits: \$3,208.28 | | | | | |
| Areas for Improvement: | | | | | |
| None noted | | | | | |
| New Opportunities: | | | | | |
| None noted | | | | | |



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| Benefits of Pursuing New Opportunities: |
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| None noted |
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4.2 UDAT Project Management

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| Program: UDAT Project Management |
| Primary Point of Contact: |
| Jay Doyle |
| Overview: |
| <p>UDAT stands for Urban Design Assistance Team, a group affiliated with the American Institute of Architects (AIA). Most teams range in size from 6-12 members. They are made up of seasoned professionals in architecture, landscape architecture, planning, economics, land development, and related disciplines. UDATs only go where they are invited. Their job is to work very closely with community residents to learn about the community's challenges and then devise a plan for solutions. They often focus on large-scale physical improvements. They look closely at a community's culture and history, the health of its commercial centers, its road network, public and private institutions, parks, and open spaces. They do address social issues, though their primary expertise is land use and the built environment.</p> <p>OCC provided project management for four large-scale community planning projects involving a UDAT that have been initiated since 2001. OCC has taken the lead responsibility, in conjunction with the Office of Planning. OCC typically provides pre-UDAT planning including development of the study boundary; pre-UDAT mailings to all affected citizens and businesses; on-site facilities management, coordination and communication; and post-UDAT map and presentation production. The Office of Planning provides on-site GIS support as well as additional follow-on activities.</p> <p>UDAT projects have been undertaken in Dundalk, Randallstown, Essex-Middle River, and Towson. GIS resources are used extensively in preparing a community to host a UDAT, in outreach efforts to involve the community, and during the one-week visit by the team. Also, the UDAT planning paradigm results in long term visionary plans that are implemented over many years, some projects sooner than others. OCC uses GIS resources very often in evaluating UDAT recommendations and developing more refined data concerning property ownership, topography, water features, parcel square footage, etc. GIS is a critical component of successfully conducting a UDAT. 25% of OCC's GIS efforts are to support UDAT.</p> |
| Funding: |
| <p>Baltimore County periodically appropriates both the current expense and bond funds from various local funding sources (for FY 2007, \$21,594,000) for revitalization projects, including UDAT projects, within the Capital Budget: Project 18.100 - Countywide Revitalization. Federal and State grant awards periodically supplement County appropriations (in FY 2007, \$792,000 and \$1,327,000, respectively) for specific purposes consistent with the stated description of this Project.</p> |
| Mandates: |
| None noted. |



| |
|---|
| Political Benefits: |
| <ul style="list-style-type: none">• County Council and County Executive are involved in planning initiatives• State recognition• Drives future planning and redevelopment activities within the county |
| Social Benefits: |
| <ul style="list-style-type: none">• Community revitalization• Aesthetic improvements (e.g., storefronts, streetscaping, etc.)• Pedestrian and transportation improvements• Business resurgence• Community involvement• Long-term plans devised and implemented• Development opportunities |
| Products/Services: |
| <ul style="list-style-type: none">• Maps• Reports• Project plans• Outreach mailings• Presentation materials |
| Customers: |
| <ul style="list-style-type: none">• County staff• County executive and elected officials,• Steering committee members,• Non-profit partners• Public at large for public presentations, publications• Business owners |



| | | |
|--|--|---|
| <p>Data (Enterprise Layers are Listed in Bold):</p> | | |
| <ul style="list-style-type: none"> • African American Survey Districts • Athletic Fields • Basic Services • Basic Services - Transportation (Intersections) • BCMD Grid • Buildings • Capital Projects • Census Block Groups (1990) • Census Block Groups (2000) • Census Blocks (1990) • Census Blocks (2000) • Census Designated Place (1990) • Census Designated Place (2000) • Census Tracts (1990) • Census Tracts (2000) • Chesapeake Bay Critical Area • Commercial Revitalization Districts • Community Associations • Community Conservation Sectors • Community Plans • Congressional Districts (2002) • Conservation Easements • Contours • Councilmanic Districts (2002) • County Boundary • County Facilities • County Historic Districts • Design Review Panel Areas • Enterprise Zones | <ul style="list-style-type: none"> • Flood Insurance Maps (FEMA) • Forest Conservation Management Areas • Historic Districts • Hydrology • Index Grid - 200 Scale (BCMD) • Index Grid - 200 Scale (MCS) • Index Grid - 600 Scale • Index Grid - ADC Map • Index Grid - MrSID Tiles • Index Grid - Phase I • Index Grid - Phase II • Index Grid - Phase III • Index Grid - VARGIS Orthophoto (1998) • Index Grid - VARGIS Orthophoto (2000) • Land Management Areas • Land Use 2002 • Landuse • Legislative Districts (2002) • Light Rail • Master Plan - Sewer • Master Plan - Water • Metro Railroad • Metropolitan District Line • National Register Historic Districts • Orthophoto (2002) • Orthophoto (2005) • PAL Centers • Park Points | <ul style="list-style-type: none"> • Parks and Recreation • Playgrounds • Priority Funding Areas • Publicly Owned Land • Regional Planning Districts • Renaissance Opportunity Areas • Reservoir • Right of Way (LACQ) • School Districts - Elementary • School Districts - High • School Districts - Middle • Sewer Service Areas • Storm Water Management Facilities • Streams and Ponds • Street Centerlines • Street Centerlines (View) • Tax Parcel • Taxmaps (Images) • Traffic Analysis Zones • Trails • Trails - Walkways • Tree Cover • Watersheds - Major • Wetlands • Wetlands - NWI • Wetlands - Special Area Management • Wooded • Zip Codes • Zoning • Zoning - 1999 • Zoning Overlay Districts |
| <p>Applications Used:</p> <ul style="list-style-type: none"> • ArcGIS (Standard) • ESRI Extensions | | |
| <p>Associated Activities:</p> <p>4.2.1 UDAT Project Management – Map Production</p> <p>4.2.2 UDAT Project Management – Outreach Mailings</p> <p>4.2.3 UDAT Project Management – Study Area Development</p> | | |



4.2.1 UDAT Project Management – Map Production

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|--|
| Activity: UDAT Project Management – Map Production |
| Primary Point of Contact: |
| Jay Doyle |
| Overview: |
| Maps are developed of multi-feature base layers prior to and during UDAT team visits. The implementation plans are also evaluated using detailed/refined project maps. |
| Interviewee(s) Providing Information: |
| Jay Doyle, Katy Kendrick |
| Process with GIS: |
| <p>GIS is used to prepare mailings and maps of the study area prior to the UDAT. GIS is used on-site during the UDAT to review options, prepare data to support decision-making, present options, etc. Post-UDAT, GIS is used to refine the proposed options, prepare recommendations and implementation plans, prepare presentation materials, etc.</p> <p>The map production included in this activity is the mapping performed by OCC, typically as the follow-on to the charrette. This activity is accounted for separately from mapping activities performed by the Office of Planning.</p> <p>Post-UDAT activities involve refinement and clarification of UDAT recommendations and implementation of UDAT projects. Examples of post-UDAT mapping include the following:</p> <p>Post-UDAT activities for the Towson UDAT totaled 80.5 hours as follows:</p> <ul style="list-style-type: none"> • 14 hours for correction/refinement of the studio-created pedestrian network map, which was reproduced 25 times for distribution to an implementation committee meeting, and served as the basis for identifying 15 capital improvement projects for improvements to intersections, pedestrian crossings, sidewalks, alleys, and streetscape sections. The pedestrian map and several others produced by OCC appear in the 44-page report booklet, 1,000 of which were released to the greater Towson community at large on February 1, 2007. • 50 hours for a very detailed set of four property identification maps for a private sector interest exploring property acquisition and redevelopment. This involved labeling of up to 30 parcels in one map and returning square footages of each, highlighting ownership groups with varied colors. Detailed property records linked to specified parcels (cadastral layer and associated assessment database) were exported from each map. • 10 hours for redevelopment opportunities maps. • 1.5 hours for Triangle redevelopment location map. • 5 hours for mid-block connections map with enhancements. <p>Randallstown post-UDAT activities totaled 52 hours as follows:</p> <ul style="list-style-type: none"> • 35 hours for a series of mapping exercises to determine the location for a 50,000 s.f. community center with an estimated cost of over \$10 million. The GIS analysis involved orthophotos, property lines, owner information, and square footages. Then various building templates were reviewed to see how they matched with potential locations. A total of 5 maps were created. |



| <ul style="list-style-type: none"> • 5 hours to map implementation priority areas, create maps for internal meetings, and create presentation materials. • 5 hours to perform GIS analysis of a civic core proposal. • 4 hours for preparation of a base map for a pocket park. • 3 hours for maps focused on the Pivnick property. <p>Following the Dundalk UDAT, maps were produced focused on the so-called Heritage Trail project. These maps have been used for several purposes, including public communication in meetings and printed reports. One map identified key property ownership data that led to extended discussions/negotiations with various parties. Other maps were used several times as part of briefing papers for county executives prior to their meetings with the mayor of the City of Baltimore.</p> | | | | | |
|--|----------------------|------------|------------------------------|-----------------------------|---|
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult, or it would not be done. Without GIS, it could take 6-7 years to develop the revitalization plans, coordinate community input, refine options, and prepare final plans needed to seek funding. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating mailings, maps, and reports. GIS is an integral part of the on-site charrette and planning process and is one of the reasons these efforts are so successful. GIS is the perfect medium for the types of what-if scenarios that are explored during the UDAT exercises. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 162.5 | 65 | 97.5 | 1 | 97.5 | \$3,310.13 |
| Total Annual Benefits: \$3,310.13 | | | | | |
| Areas for Improvement: | | | | | |
| None noted | | | | | |
| New Opportunities: | | | | | |
| None noted | | | | | |
| Benefits of Pursuing New Opportunities: | | | | | |
| None noted | | | | | |



4.2.2 UDAT Project Management – Outreach Mailings

| Activity: UDAT Project Management – Outreach Mailings | | | | | |
|---|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Jay Doyle | | | | | |
| Overview: | | | | | |
| Outreach mailings are prepared using cadastral data to identify property owners in the UDAT area and addresses obtained from the assessment file for properties within the study area. Using geographic overlays, the impacted properties are identified and outreach mailings are sent to the citizens. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Jay Doyle | | | | | |
| Process with GIS: | | | | | |
| GIS is used to prepare mailings related to the UDAT. There is typically one mailing to all citizens and businesses within the UDAT study area. A map of the study area showing the orthophotos, study area outline, property outlines, and property uses is included in the mailing. Property records within the study area are selected, scrubbed, and used to create the mailing labels. For the Randallstown UDAT in 2003, the mailing was sent to 2,000 recipients. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would be much more difficult to develop accurate mailing lists of affected property owners. Based on estimates provided by interviewees from other agencies, it is assumed that developing the mailing list using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| <ul style="list-style-type: none"> • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating mailings, maps, and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 75 | 30 | 45 | 1 | 45 | \$1,527.75 |
| Total Annual Benefits: \$1,527.75 | | | | | |
| Areas for Improvement: | | | | | |
| None noted | | | | | |
| New Opportunities: | | | | | |
| None noted | | | | | |



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| Benefits of Pursuing New Opportunities: |
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| None noted |
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4.2.3 UDAT Project Management – Study Area Development

| Activity: UDAT Project Management – Study Area Development | | | | | |
|---|----------------------|------------|------------------------------|-----------------------------|---|
| Primary Point of Contact: | | | | | |
| Jay Doyle | | | | | |
| Overview: | | | | | |
| This activity involves developing the study area extent and creating a boundary to delineate the area for use throughout the UDAT process. | | | | | |
| Interviewee(s) Providing Information: | | | | | |
| Jay Doyle | | | | | |
| Process with GIS: | | | | | |
| GIS is used to develop the outline of the UDAT study area and maps showing the study area prior to the UDAT. The study area definition evolves through the process and maps showing the study area are shared with steering committee members and undergo revisions. The maps usually include many GIS layers and very detailed labeling by hand so that all areas are clearly identified. It takes about 25 hours to prepare the study area maps, including all revisions. | | | | | |
| Process without GIS: | | | | | |
| Without GIS, it would take longer. Based on estimates provided by interviewees from other agencies, it is assumed that making maps using a manual process would take 2-3 times as long as using GIS. | | | | | |
| Benefits Assessment: (H, M, L) Identify confidence level | | | | | |
| • Medium | | | | | |
| Benefits to Using GIS for this Activity: | | | | | |
| GIS saves time and money performing the analyses and creating mailings, maps, and reports. | | | | | |
| Annual Savings from Use of GIS: | | | | | |
| Staff Hours w/o GIS (Manual) | Staff Hours with GIS | Difference | Annual # Iterations Per Year | Total Hours Saved Using GIS | Annual Time Savings Benefit (Based on \$33.95/hr) |
| 62.5 | 25 | 37.5 | 1 | 37.5 | \$1,273.13 |
| Total Annual Benefits: \$1,273.13 | | | | | |
| Areas for Improvement: | | | | | |
| None noted | | | | | |
| New Opportunities: | | | | | |
| None noted | | | | | |



Benefits of Pursuing New Opportunities:

None noted



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5 Short-form Online Questionnaires

Agency Office of Community Conservation

Name Joseph A. 'Jay' Doyle IV

Job Title Community Revitalization Specialist

Briefly, what activity(s) do you perform within your department?

communications, outreach, mapping, public meetings, community planning with Urban Design Assistance Teams (UDAT), press releases and events, assist with capital project implementation

Approximately what percentage of your work week do you spend for each activity identified in question #8?

communications -- 25% community planning, outreach, with some mapping -- 40% assist with capital projects, with some some mapping -- 20% special events -- 15%

Do you use GIS data or databases (e.g., orthophotos, topography, property maps) to perform your daily job? If yes, please provide an example.

Yes, I use GIS to prepare maps in support of community planning efforts, such as with the recent Towson Urban Design Assistance Team projects. I prepared the map that determined the boundaries for the project study area.

Do you use GIS applications (e.g., DataQuery, MyNeighborhood websites) to perform your daily job? If yes, please provide an example.

Not very often

Do you use spatial analysis (e.g. geocoding, routing) to perform your daily job? If yes, please provide an example.

Yes, I use some geocoding, but not too often recently. We have used it to display the location of a series of projects. We'd like to do more of that in the future

Do you use or produce hardcopy or digital maps to perform your daily job? If yes, please provide an example.

Yes, very often. Most recently a prepared a package of hard copy maps and associated property records for a developer interested in pursuing a land use recommendation from the Towson UDAT study

Do you provide data products or services to other agencies or the public? If yes, please provide an example.

Yes, to planning process participants as mentioned in #14. I have fulfilled a variety of requests from public organizations, including a group seeking the percentage of rental properties in their community.

Do you perform any GIS data maintenance activities? If yes, please provide an example.

No

Briefly list the activities that you perform using GIS? (create maps for master plan, locate water customer addresses for work orders, etc.)

create maps for planning processes, often UDAT. Maps are created before, during and after the process create maps to assist with implementation of a variety of capital projects; these maps are both base maps for architects and consultants and maps for public meetings create maps to help devise marketing campaigns Use GIS to extract detailed property ownership records for redevelopment analysis and outreach mailings

What activities do you think could benefit from use of (or increased use of) GIS?

targeted marketing campaigns to support older, marginal commercial areas; overview analysis of agency investments and return



Please provide any additional comments you have regarding the use of GIS technology by your department, agency or the County as a whole.

I believe the GIS system is a crucial and valuable asset. My job performance and ability to serve constituents would suffer without it.



Agency Office of Community Conservation

Name Liz Glenn

Job Title Chief

Briefly, what activity(s) do you perform within your department?

Administer Federal Funds Strategic Planning Personnel Management

Approximately what percentage of your work week do you spend for each activity identified in question #9?

Administer Federal Funds 50% Strategic Planning 25% Personnel Management 25%

Do you use GIS data or databases (e.g., orthophotos, topography, property maps) to perform your daily job? If yes, please provide an example.

Mapping census tracts, federally funded projects, rental housing, property values, and miscellaneous socioeconomic data.

Do you use GIS applications (e.g., DataQuery, MyNeighborhood websites) to perform your daily job? If yes, please provide an example.

Not really.

Do you use spatial analysis (e.g. geocoding, routing) to perform your daily job? If yes, please provide an example.

No.

Do you use or produce hardcopy or digital maps to perform your daily job? If yes, please provide an example.

Yes. For planning purposes to identify potential capital and human service projects.

Do you provide data products or services to other agencies or the public? If yes, please provide an example.

Through the Consolidated Plan, we may provide data gathered from data products, or use data products to identify need, or plan for future projects.

Do you perform any GIS data maintenance activities? If yes, please provide an example.

No.

Briefly list the activities that you perform using GIS? (create maps for master plan, locate water customer addresses for work orders, etc.)

While I do not perform these duties, others are preparing data products such as maps for planning purposes or planning documents.

What activities do you think could benefit from use of (or increased use of) GIS?

Identifying parcels for infill development or redevelopment, identifying impacted areas, identifying age cohorts, plotting the availability of human and social services and correlating them to areas where those who need the services reside.

Please provide any additional comments you have regarding the use of GIS technology by your department, agency or the County as a whole.

None.