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INFRASTRUCTURE PLANNING AND FINANCING

Policy Recommendations for the Commonwealth of Pennsylvania with Particular Emphasis on
Northeastern Pennsylvania

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Infrastructure Planning and Financing: Policy Recommendations for the Commonwealth of Pennsylvania with Particular Emphasis on Northeastern Pennsylvania

Executive Summary

Infrastructure, from the Latin word “infra,” meaning below, and “structure,” or erected object, is often something we take for granted. The name is fitting, as infrastructure is often not only the foundation below structures, but also outside of the scope of our vision - out of sight and out of mind. According to the definition from the Dictionary of Civil Engineering, infrastructure is a term encompassing roads and other means of transport, communications (telephone, radio, postal services), water supply, sewerage, sewage treatment, and electricity, gas and other fuel supplies.ⁱ

As a former Pennsylvania Governor once noted in a Senate Finance Committee hearing on infrastructure, *“Visible or not, properly functioning infrastructure provides us with the reliability and predictability that we as Americans have come to expect from modern daily life.”*ⁱⁱ It is one of the most crucial but invisible physical foundations of our communities, the regions and states they comprise, and the country of which they are part. Infrastructure is tremendously important, not only for the economy’s growth but also for the betterment of society.

The purpose of this white paper is to identify a solution to infrastructure problems in northeastern Pennsylvania (NEPA) and the Commonwealth through the formation of infrastructure districts as a tool for cataloging, reporting, prioritizing, and funding regional infrastructure projects. This paper outlines the need and demonstrates possible solutions through presentation of case studies. Infrastructure districts have been legislated in other states (statutes and case studies) with success affirming the concept which should garner support for enabling legislation in Pennsylvania.

A Pennsylvania infrastructure district act, written according to the General Assembly’s specifications, will enable the municipalities of Pennsylvania to finance much needed infrastructure in an equitable, efficient, and timely manner. Although state and federal programs fund many infrastructure projects, having such an act in place would allow municipalities, through the Districts, to fund the local costs or the full cost of special projects in their region. Such an act might also reduce the burden placed on the state for infrastructure financing thru efficiencies brought about by more collaborative approaches to infrastructure investment. California’s legislation discusses the use of an infrastructure district to address a special need for seismic retrofit of structures. Pennsylvania’s legislation could address

infrastructure needs very important to the citizens of Pennsylvania, such as flood control or sewer and water supply infrastructure.

One major issue in Lackawanna and Luzerne Counties and elsewhere in the State is the lack of a centralized agency or group tasked with identifying, cataloging, and prioritizing infrastructure concerns and providing municipalities with the expertise they need to strategically address their needs, including sources of revenue for repair and expansion of existing infrastructure. An infrastructure district would be that centralized agency structured to assess infrastructure needs and develop solutions which then could be utilized to leverage state and local resources to fund projects that will improve the long term sustainability of communities

Several examples of successful Infrastructure Districts are outlined in this paper. This paper recommends that Pennsylvania move forward with the following legislative recommendations:

1. Develop infrastructure districts in the state
2. Require each infrastructure district to develop a regional infrastructure plan

An infrastructure district comprising Lackawanna and Luzerne Counties should be formed to serve as the lead entity to develop an infrastructure plan that creates an inventory and catalog all forms of infrastructure in the region, perform condition assessments of the infrastructure, perform studies to evaluate existing infrastructure rehabilitation, new system needs and life-cycle cost analysis, and prioritize projects while serving as the conduit for funding and the prioritization and oversight of projects. A policy should be developed to determine how a need becomes a project. With legislative action, the infrastructure district could generate its' own revenue for maintenance and/or capital projects through imposition of fees similar to municipal authorities.

Existing Infrastructure Condition

Pennsylvania's Infrastructure

The American Society of Civil Engineers (ASCE) is a body that represents civil engineers worldwide. In 2006, statewide ASCE members gathered to issue the first "Report Card" for Pennsylvania's Infrastructure.ⁱⁱⁱ In 2010, ASCE members released a second Report Card, which reflected that during the four years since the last report, the state's infrastructure quality had worsened. The issues they noted as the top three infrastructure concerns were the same issues that had been presented in the ASCE's 2008 findings, including bridges, roads, and wastewater^{iv}. The 2010 Report Card findings are disturbing and are summarized as follows:

Pennsylvania Infrastructure Report Card 2010	
Type	Grade
Dams and Levees	C-
Bridges	C-
Roads	D-
Transit	D-
Navigable Waterways	D-
Freight Rail	B
Drinking Water	D+
Wastewater	D+
Parks and Recreation	B-
School Facilities	B-

Dams and Levees - Grade C-. About 39% of the “high hazard” dams, those whose failure would cause property damage and loss of life, are considered deficient. Furthermore, one-third of Pennsylvania’s levee systems are greater than fifty years old. Pennsylvania’s ASCE members worry that the age of the state’s levee systems could increase the likelihood of failure, a notion that is particularly disturbing due to the recent increase in the frequency of significant storm events such as Hurricane Irene (2011), Tropical Storm Lee (2011) and Super Storm Sandy (2012).^v

Bridges - Grade C, Roads D-, Transit D-. The report noted that “International Roughness Index statistics show that 38% of Pennsylvania’s roads are rated fair or poor.”^{vi} Regarding bridges, the report noted that, “Of Pennsylvania’s 22,280 bridges, 27% are considered structurally deficient and 17% are deemed functionally obsolete.”^{vii} These problems not only result in increased congestion, but they also add to vehicle repair costs, increase the rate of accidents and emergency vehicle response times. Without a robust public transportation network, mobility will be severely limited.

Navigable waterways - Grade D- The condition of the waterways illuminates a serious threat to commercial shipping, but also other threats such as “severe water quality degradation, loss of hydropower and destruction of wetlands.”^{viii}

Freight Rail – Grade B. This is the highest grade any of the infrastructure categories. It should be noted that freight rail is funded primarily by private operators such as Norfolk Southern, Canadian Pacific, and others. Regional short line operators struggle to maintain their systems since they do not have the financial resources of the larger rail companies.

Drinking Water - Grade D+. With “the number of drinking water systems in violation of regulations is on the rise,”^{ix} the report notes that waterborne outbreaks are minimal, however the worry is that “if funding needs are not met, the state risks reversing the public health, environmental and economic gains that have been made over the past three decades.”^x

Storm Water – Grade D-. Storm water runoff, ends up contaminated with unwanted biological and chemical elements that pose a risk to public health, as it ends up in reservoirs and lakes. This is important to address due to the fact that “approximately 84% of Pennsylvanians rely on surface water for their drinking water supply.”^{xi}

Wastewater - Grade D+. Wastewater systems are also aging at a rapid rate and grant and loan programs are strained to the limit to keep pace with upgrades and expansions. The related collection systems are in many cases hundreds of years old. They are often treated as out of sight, out of mind until the system fails, then they are repaired segment by segment.

Parks and Recreation and Schools – Grade B-^{xii}. It may be argued that these grades are not deeply disturbing like some of the other infrastructure categories, however this would be a subjective statement, especially when it comes to the issue of schools. School infrastructure rated in the report is confined to the bricks and mortar, not the system of educating the students. Also, the report fails to address the looming crisis associated with the hard infrastructure which will be required to upgrade school buildings to state of the art facilities to handle technological innovations as they apply to the classroom of tomorrow.

Northeastern Pennsylvania’s Infrastructure

Many of these statewide infrastructure assessments are representative of conditions in NEPA. If the report card had focused solely on NEPA, it may have been the case that scores were better in some areas and worse in others. However, the growing call for increased infrastructure spending in NEPA indicates that infrastructure quality is subpar, and it will continue to decline if funding is not increased and allocated more efficiently to maximize its’ effectiveness in solving our most critical needs.

Northeastern Pennsylvania’s decline in the quality of its infrastructure can be partly attributed to urban sprawl and a declining tax base in the urban centers. Instead of focusing our monetary resources on fixing what’s broke, infrastructure expenditures have primarily been focused on new centers for employment opportunities to extend sewers and water lines and other similar infrastructure at the detriment of the existing aging systems has been noted by local transportation planners that the same cannot be said for roads, highways, and other transportation facilities. It is a much different scenario. PennDOT has been engaged for several

years in an ambitious maintenance first approach to the states roads and bridges, while many capacity adding projects have been cancelled or delayed.

NEPA has abundant water resources, however our drinking water facilities are in need of billions of dollars in investment if they are to continue to meet minimum standards for potable water, as laid out in legislation such as the federal Water Quality Act of 1987. It was the infiltration of the “beaver virus” or Giardia in NEPA water supplies in the 1980s that forced upgrades to the water supply system in Luzerne County and the need for filtration systems. A reactive approach to infrastructure maintenance, such as that, should be averted in the future.

Wastewater systems, including combined-sewer overflows (CSOs) in the urban areas, continue to pollute the areas streams and rivers during high runoff periods. Neglect of storm water systems can cause flood damages due to the resistance of communities to coordinate the management of watersheds that impact their neighbors in the lower reaches of the watershed.

Information on the state of NEPA’s infrastructure is very fragmented and difficult to access except for transportation systems. The occasional news articles describe the fragile state of our infrastructure, however, these are rarely, if ever, comprehensive, and are often very vague. As stated earlier, there is no “report card” for NEPA’s infrastructure. This is an important issue that must be addressed in aggregate alongside the issue of infrastructure financing. It is important that NEPA residents and planners have a comprehensive understanding of all infrastructure issues before scarce resources are invested in public infrastructure projects.

Specific examples can be given of each category, but to list them all would be time consuming due to the lack of any reliable data which is due to the just mentioned lack of a systematic approach to managing the facilities.

Managing our Infrastructure

Successful Management Approaches

The Luzerne/Lackawanna County Metropolitan Planning Organization (MPO) is the one organization that exemplifies a solid approach to managing an infrastructure system. The MPO is a governmental entity that determines how state and federal highway and bridge funding will be disbursed in Luzerne and Lackawanna counties. Established following the Federal Highway Act of 1973, it exemplifies well the principle of subsidiarity, as it is comprised of three committees: the Transportation Advisory Committee (TAC), the Technical Committee, and the Coordinating Committee. The TAC “consists of about 22 people who represent a wide variety of interests including environment, business & industry, automotive and trucking, rail freight, and para-transit, among others” and “acts as an advisory body to the Technical Committee,” which

oversees the preparation of planning and related documents. The technical committee is comprised of individuals who represent Wilkes-Barre, Scranton, Hazleton, both county governments, PennDOT, and the various transportation agencies of these entities. The Technical Committee presents its recommendations to the Coordinating Committee which works with transportation stakeholders to prioritize investments in the region's transportation system.^{xiii}

Every four years, the organization's transportation plan must be updated per Federal Highway Administration (FHWA) regulations. The MPO posts on its website several documents available to the public that outline the need for repaired and/or new infrastructure. These currently include the 2011 – 2035 Comprehensive Land Use Plan and Long Range Transportation Plan, the 2011 – 2014 and 2013 – 2016 Transportation Improvement Programs, and the Pennsylvania Community Transportation Initiative Program (PCTI).^{xiv xv} The subsidiarity principle is evident here. A municipality or municipal authority may apply to the MPO for funding for a particular project. The MPO in turn, if the project is deemed worthwhile, submits the request to the state. Thus the project must meet federal, state, regional, and municipal requirements to be eligible for funding.

The Lackawanna River Basin Sewer Authority (*LRBSA*) and the Wyoming Valley Sanitary Authority (*WVSA*) are two bodies that effectively manage waste water in NEPA.^{xvi xvii} As authorities, they have the power to enact a fee schedule to derive revenue for their operations and maintenance and upgrade of their infrastructure. Despite the successes that can be attached to this authority based management approach, municipalities within the service areas of their systems are responsible for the collection systems, sewers and pumping stations. Municipalities have been forced to enact sewage system fees to offset infrastructure maintenance costs. If a downstream municipality does not maintain their system to handle current or future flows, upstream communities are negatively impacted, especially when economic development opportunities are delayed or cancelled when conveyance facility issues are not readily resolved by the neighboring community. It may be time to consolidate the entire collection and treatment system under the umbrella of the Authorities to take a more managed approach to overall system maintenance and thus, performance. This would resemble an infrastructure district related solely to wastewater.

Management Challenges

Although the MPO effectively deals with transportation infrastructure in Luzerne and Lackawanna Counties, one could conclude that it does so well because the Federal Government mandates statewide management of transportation assets through the Federal Transportation Bill. Also, transportation infrastructure is very visible and it impacts our life very directly every day of the week so the public demands more accountability

Other critical infrastructure systems such as drinking water (mix of private and public providers), storm water, and waste water systems are managed in very different ways, sometimes with success and other times to the detriment of the communities they serve. For example, with regard to storm water, there is no county-level agency or firm tasked with managing infrastructure assets. The Pennsylvania Department of Environmental (PADEP) does have oversight authority but they do not manage the systems.

In 2010, PADEP and Luzerne County, aware of issues related to storm water infrastructure, sought to evaluate the state of storm water infrastructure. During this evaluation, “about 250 runoff issues were identified” in a report that also recommended a storm water management ordinance to reduce flooding while improving the water quality of streams.”^{xviii}

An ordinance was enacted by the County to regulate the impact of new developments on the various watersheds throughout the County. Regulations were placed on private firms and industry to prevent overtaxing of the county’s storm water infrastructure.^{xix} Storm water management permits would be granted to those developers whose plans did not threaten the existing infrastructure. However, it should be readily apparent that this ordinance does not do much for future storm water infrastructure construction. Despite the protections afforded by this ordinance, infrastructure will still erode (only slower than it otherwise would have) and eventually no longer function as intended to protect life and property.

Other infrastructure systems are managed poorly in most cases at the municipal level due to a lack of expertise and financial resources. Local governments are struggling to keep pace with financial demands related to policing, firefighting, pension obligations, and many more basic services, all with dwindling tax revenue, especially in the urban areas where the demand is high with aging infrastructure systems.

Infrastructure Financing

Existing or Conventional Infrastructure Funding

Conventional infrastructure funding has proven to be just barely adequate in many instances. Often, municipalities are highly reliant upon grants to accomplish their infrastructure goals (problematic with state budget issues). The remainder, the cost that is not met by grants and other external monies, is sometimes met through higher taxes. Higher taxes to support infrastructure investment are problematic to some municipalities since they are usually dedicated to other pressing needs mentioned above.

Another source of funding for infrastructure construction is impact fees. Impact fees are those costs levied on developers to assist governing authorities with funding infrastructure

necessitated by the developer's plans. For example, if a shopping mall or a housing development is to be built, impact fees will assist the city as in building or improving roads and highways, schools and parks, water systems and other infrastructure to meet the needs of the development. Impact fees are a good way of ensuring equitable infrastructure financing. However, if these impact fees are too low, the financing burden is shifted to governing authorities and their tax bases. If the impact fees are too high, growth will be impeded as developers look elsewhere. These fees seldom address existing infrastructure systems where most of the need exists.

Recently, some municipalities are implementing a flat annual fee for "sewer infrastructure" maintenance. This is usually done when the town's taxing authority has reached the maximum allowed by state statute.

Other or Unconventional Funding Mechanisms

Equity and impartiality in infrastructure financing mechanisms are crucial not only to ensure evenhandedness in taxing, but also to ensure commercial interest and economic growth in an area for job creation. Infrastructure financing cannot come solely and spontaneously from extant tax bases, especially when the new tax would unfairly target a small portion of the citizenry unable to absorb a sharp increase in taxes for a project that was not anticipated or for the benefit of a larger region. Also, distressed communities often are unable to obtain favorable financing at rates that can be amortized over a reasonable term. It is readily apparent for these reasons that a good balance must be reached.

Infrastructure financing mechanisms should become more diversified so that fewer projects rely on uncertain grants from state or federal agencies. Even assuming that these grants and loans continue, the following financing mechanisms examples are ingenious and equitable ones that can assist municipalities in financing the remainder of the project(s) that they have chosen to fund. Pennsylvania should consider making such financing mechanisms available to well run Authorities or Districts with the ability to properly plan and execute critical projects for their regions. In particular, language allowing and encouraging the establishment of Infrastructure Districts, to be discussed later, must be codified.

Infrastructure Banks

Infrastructure banks, the other novel infrastructure financing mechanism, already exist in Pennsylvania, but they may need to be refreshed.

Infrastructure banks are a way to funding infrastructure rehabilitation or new construction (they are often reserved for only new construction). Similar to a regular bank, an infrastructure bank aims to leverage funds in a manner that ensures the borrowing entity will stay afloat. However, infrastructure banks, unlike commercial banks, are government sponsored

institutions and have a rather narrow scope: infrastructure, as one could expect from the name. Ideally, infrastructure banks combine public and private monies and lend or grant funds to support the construction of public projects.

Infrastructure banks are different from infrastructure trust funds, such as the United States Highway Trust Fund. The Highway Trust Fund receives funds from excise taxes on fuel and truck-related sales and these monies are not repaid. However, an infrastructure bank is repaid the money it lends out, often with interest. Furthermore, oftentimes infrastructure banks only grant a certain portion of the total need, leaving the rest for states, municipalities or private firms to cover. The risk is more evenly spread when the infrastructure bank is not the sole investor in the project.

Nationally, infrastructure banks are not a new concept. They have been in use for quite some time and have been a good vehicle for lending public funds leveraged with private funds. They are only quasi-public and are designed to remain solvent. Often such infrastructure banks have a good amount of bipartisan support.^{xx} The American Jobs Act of 2012 established a national infrastructure bank, which, for the most part, was received well by both Democrats and Republicans, and was even backed by both the AFL-CIO and the U.S. Chamber of Commerce.^{xxi xxii}

Pennsylvania Infrastructure Bank

Pennsylvania has a few infrastructure banks for the funding of capital public transportation projects. The Pennsylvania Infrastructure Bank (PIB, overseen by PennDOT) was created to “leverage state and federal funds, accelerate priority transportation projects, spur economic development, and assist local governments with their transportation needs.”^{xxiii} These projects must also be eligible for PennDOT and federal funding, as well as well as liquid fuel expenditures^{xxiv} (disbursed to municipalities by PennDOT). Eligibility requirements again illustrate the principle of subsidiarity. Unlike other infrastructure banks, PIB will cover 100% of eligible costs for an approved project if funding from elsewhere is not available^{xxv}.

As previously mentioned, projects must be eligible to use the municipality’s liquid fuel tax monies (disbursed by PennDOT). This means projects cannot be dedicated to the construction or repair of private roads, administration/maintenance buildings, water lines, or parks, to name just a few.^{xxvi} Some of these projects could perhaps be eligible for funding from other sources, such as state grants, or Pennsylvania Infrastructure and Investment Authority (PENNVEST) in the case of water lines and sanitary sewers.

Although capitalized in 1998 with state and federal funds, PIB has since then sought to leverage federal and state funds “by attracting local and private financial participation.”^{xxvii} Eligibility for PIB funds is based on eligibility for PennDOT, Federal, and liquid fuel funding. PIB loans may not

be made to satisfy or refinance existing debt. These low-interest loans are strictly for the financing of transportation projects, which can be in any phase. Some of the criteria include compliance with the Americans with Disabilities Act (ADA), restrictions on use of funds for the purposes of lobbying (Title 31 U.S.C Section 1352), the Local Government Unit Debt Act (LGUDA) and applicable municipal laws.

From municipality to municipality and from project to project, the criteria varies slightly.^{xxviii} In its application brochure, PIB acknowledges this and recommends that applicants contact or meet with the PIB manager, the PennDOT district office, or the appropriate PennDOT bureau to determine whether the project is eligible for funding. Applications may be submitted at any time and are considered as they are received.

When received and while being reviewed, the interest rate is locked at half the prime rate. The PIB Manager evaluates the application against a series of criteria. The PIB manager evaluates whether the project is capable of meeting or surpassing the relevant federal, state, and local planning, financial, and environmental requirements. The PIB manager will also review whether the project is financially sound. That is, the PIB manager will ensure that the project cost estimate is based on accurate information and the funding sources and revenue and expense projections are secure.

The applicant may be contacted by the PIB manager for further information, specifically financial and credit-risk related. The PIB manager verifies all the information provided by the applicant in order to ensure loan repayment. The Secretary of Transportation reviews the loan application and the conditions established by the PIB manager. The Secretary of Transportation approves or disapproves the loan application. PennDOT then notifies the applicant in writing, of the decision.

Next, if the loan has been approved, it is executed by the relevant parties. The PIB manager drafts a loan agreement that delineates interest rates, time periods and other conditions. Borrowers, if they are municipal, must be approved by the Commonwealth to enter into debt, and must also adopt a resolution affirming that they approve of signing the loan agreement. The Commonwealth will then sign the agreement. The method of disbursement of funds varies by loan agreement.^{xxix} According to the Annual Report to the U.S. Department of Transportation by PennDOT for the fiscal year of 2010 – 2011, 24 loans valuing \$27.6 million were approved by the Pennsylvania Infrastructure Bank. The report notes that “as in previous years, the Municipal Loan Program dominated this year’s loan activity.”^{xxx} Of the 24 projects approved, 22 were highway projects, one was an aviation project, and one was a rail freight project. The report states that “the Department will continue to sustain a \$30 million loan program each year until the funding needs change.”^{xxxi} It also notes that the long-term goal of

the infrastructure bank is to sustain an annual level of funds that meets needs and is self-sufficient through loan repayments.

PENNVEST

PENNVEST is Pennsylvania's primary water infrastructure bank and has been empowered by the "Pennsylvania Infrastructure Investment Authority Act 16 of 1988, to administer and finance the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) pursuant to the federal Water Quality Act of 1987, as well as to administer the American Recovery and Reinvestment Act of 2009 (ARRA) funds." Furthermore, by issuing special obligation revenue bonds, PENNVEST finances water management and waste water treatment projects.

PENNVEST funding comes from various sources, both state and federal. Regarding funds from the state, Commonwealth General Obligation Bonds, approved by a number of referenda since 1981, made up a substantial portion of PENNVEST's 2010 – 2011 budget, over \$1.2 billion. Federal monies accounted for a slightly larger portion of the budget. Federal Grants, for example, accounted for over \$1.4 billion, the American Recovery and Reinvestment Act accounted for \$220.9 million, and interest earned on federal loans accounted for \$187.1 million. Other sources amounted to much less; investment income, for example, accounted for \$224.5 million. The 2010 – 2011 PENNVEST annual report notes that "as was the case in the prior fiscal year, the interest in water infrastructure funding all across Pennsylvania was much greater than the funding available to PENNVEST to meet that demand."^{xxxii}

Per § 963.4 of the Pennsylvania State Code, an applicant for PENNVEST funds must be the owner or operator of a system (such as the WVSA) or a facility within the system whose purpose is the collection, treatment, or disposal of wastewater, or the collection, treatment, storage or distribution of drinking water. Additionally, a municipality, even if it is not the owner or operator of such a system, may apply for funding if it meets two conditions. Firstly, sufficient collateral or sufficient guarantee of repayment must be pledged to PENNVEST. Secondly, the municipality must be entered into agreement with the owner or operator of the system to ensure that the project and system will be operated professionally and in a manner that allows the loan to be repaid.^{xxxiii}

PENNVEST maintains a very user-friendly 'Project Search' webpage that displays all 67 counties in Pennsylvania and allows a user to search for waste water, storm water, and/or drinking water projects by county or in the entire state. The user can also select whether they would like to search for only ARRA projects, and in an advanced search section may even narrow the results by the date of approval or by U.S. Congressional District or by program type. The table that is generated by the user's query is equally as user-friendly, displaying the project name,

the project type, the approval date, the dollar amount, and the source of funding. PENNVEST administers and finances both state and federal funding for projects.

For the fiscal year 2010 – 2011, PENNVEST provided \$437 million in financing to a total of 93 projects. Of this sum, \$330 million was given in low-interest loans, while \$107 million was given in grants. This \$437 million total was the result of 1,263 monthly disbursements. In addition to cities, boroughs and townships, as well as wastewater/drinking water facilities and systems, are eligible for PENNVEST funds. For example, during fiscal year 2010 – 2011, in Wayne County, the South Wayne County Water & Sewer Authority received a \$3 million loan. In Luzerne County, Yatesville Borough received a \$600,000 loan, and in Lackawanna County, the Scranton Sewer Authority received a \$17.7 million loan. In Susquehanna County, the Pennsylvania American Water Company received a \$172,682 loan and an \$11.6 million grant.^{xxxiv}

Commonwealth Financing Authority

The Commonwealth Financing Authority, or the CFA, “was established as an independent agency of the Commonwealth to administer Pennsylvania's economic stimulus packages.”^{xxxv} CFA can guarantee up to \$5 million of Tax Increment Financing (TIF) Bonds. TIF Bonds leverage future tax revenues generated through the improvement, but the local taxing bodies must approve deferring the collections of those taxes for the term of the Bond payback. In the current (2013) challenging economic times, these agreements are more difficult to secure from the taxing bodies.

Others

There are an abundance of other agencies, both state and federal, from which municipalities, their agencies, private businesses, and other entities might seek grants and loans. It is difficult to determine exactly how easy or how difficult it is for these entities to navigate the hodgepodge of agencies that offer grants and loans, but this is another matter entirely. Assuming that the entities and their staffs are properly trained to identify and apply for grants, there still exist the following questions, “How will the remainder of a project’s cost be covered?” and how will a project’s cost be covered in the event that there the grants or low-interest loans are denied?”

The Pennsylvania Department of Community and Economic Development (DCED) and the Federal Highway Administration each have numerous grant and loan programs. DCED, for example, has Local Development District grants, the Local Government Capital Project Loan Program, the Main Street Program, aimed at revitalizing a municipality’s downtown area, and the PennPORTS Funding Program, which was established to provide funding for improvements to the ports of select cities in Pennsylvania. These represent just a few of the many Pennsylvania loan and grant programs for which one may apply.

Additionally, The Commonwealth Financing Authority administers Pennsylvania's economic stimulus packages. Applications for the DCED loans and grants can be made through the Single Application for Assistance of the DCED. Applicants can also find funding sources and determine their eligibility using the Funding and Program Finder on the Department of Community and Economic Development's website.^{xxxvi} The Federal Highway Administration grants are usually administered through PennDOT and are limited in size and require cost sharing for a significant portion of the project.

Infrastructure Districts

An infrastructure district (or ID) is an area, often within a municipality, that has special taxing authority in order to satisfy debt obligations on bonds issued to construct or expand infrastructure within the district. An ID can also be referred to as a Community Infrastructure District (CID), a Regional Infrastructure District (RID), an Infrastructure Financing District (IFD), a Public Improvement District (PID), or a Special Assessment District (SAD). All these terms acknowledge and indicate that it is a particular district where the taxes or fees levied are for a specific project within the district.

An added benefit of an Infrastructure District could be technical expertise on staff that would be responsible for development of an inventory of existing infrastructure and its condition, establishment of infrastructure needs based on growth trends/opportunities for development, annualized cost projections to maintain existing assets, identification of and pursuit of revenue sources, and development of a 10 and 20 year plan for investment similar to what the MPO's do for transportation funding. They would prioritize investments in infrastructure that make sense for the region's future success and well being.

If using property taxes, as opposed to revenues (this will be discussed shortly), to finance the ID, a municipality could choose an area in which the property taxes will be (perhaps partially) diverted for some amount of time (competing interests for the revenue may prevent this alternative). Often the area's residents then vote on the measure. The revenue from these taxpayers, instead of going into the "general fund" of the municipality to pay for normal expenses, would be used to pay and satisfy the interest on bonds issued by the municipality to pay for infrastructure improvements. The property taxes might be only partially diverted because there are usually mandatory outlays (such as school systems).

The benefit of such a mechanism as the ID is that a city may acquire funds (through the bonds) to pay for capital projects that they would otherwise never be able to finance through conventional methods. Ideally, the capital projects and infrastructure improvements would cause nearby properties to appreciate in value, perhaps offsetting the loss experienced by the general fund by the ID fund diversion. Furthermore, better schools, parks, roads, and other

infrastructure may attract more residents and this in turn may attract more business, adding to the tax base of the city.

It is clear that there is an inherent risk present in any such plan which depends on future increases in value of the regions tax base. What if factors beyond the ID planners' control negatively impact the project? Then the city and/or region would be left with a massive amount of debt (in the millions of dollars most likely). Such factors as crime, recession, natural disaster and many more could leave the projects stalled indefinitely, blighting the designated area in which the projects are being undertaken.

It is important to note that although private firms and non-profit organizations may, in some jurisdictions, petition for an Infrastructure District or apply for funds, the end product, the infrastructure mains public. The Rincon Hill Infrastructure Financing District, which will be discussed later, exemplifies this principle. Michael Yarne, development advisor to San Francisco mayor Edwin Lee, has stated that only "publicly owned and publically used facilities" such as streets, parks, sidewalks, and sewers can receive capital cost funding within the IFD."^{xxxvii} Private firms may construct or repair the infrastructure, but, from start to end, it remains public infrastructure.

The infrastructure bonds' are secured by the value of the proposed projects. This value may exist in the form of tax revenue or some sort of toll or other fee that may be charged by the project's administrators. Sound underwriting of the bonds is crucial; if the risk is not analyzed correctly, the city, the specific region and its residents will be left with the debt. Developers and municipalities alike should engage consultants experienced in the area of bonds and, more specifically, infrastructure district bonds, before venturing too far onto a project agreement and Bond issue.

The district's formation and the issuance of its bonds come about as a result of the work of planners, engineers, investment bankers and attorneys. It all sounds like a very complex process; however, if a state has legislation enabling the formation of such districts and a city has established procedures for a developer to apply for infrastructure district financing, the process can be streamlined and straightforward. When the work is divided between design engineers, assessment engineers, bond consultants, finance attorneys and underwriters, their individual specializations and skills can bring the proposal and the project to fruition. This division of labor is exemplified in both the next two case studies; however it is very evident in the Rincon Hill IFD, discussed below.

Case Studies

(Complete case studies located in the appendix)

The Schuylkill County Municipal Authority (SCMA) was formed by the Schuylkill County Commissioners in 1961^{xxxviii} and is the largest sanitary service provider in Schuylkill County. In addition to water treatment services, the SCMA also provides drinking water to county residents.^{xxxix} They handle both the county's waste water treatment and drinking water needs. Eagle City, Idaho, on March 27, 2012, established a Community Infrastructure District to fund infrastructure necessitated by a new development, Spring Valley, a 5,610-acre residential development. The Rincon Hill Infrastructure Financing District, as California's first IFD, has been implemented in the Rincon Hill neighborhood of San Francisco in order to fund infrastructure improvements that area residents feel have been lacking for quite some time.

Infrastructure Districts and State Statutes

There are many references to the term "infrastructure district" in many states' legal codes. However, not all of these describe infrastructure districts in the sense that we have covered here. For example, North Carolina General Statutes' Chapter 158 contains in Article 2A a section entitled "Multi-County Water Conservation and Infrastructure District." However, the purpose of the statutes found within this legislation is to establish a multi-county public authority capable of overseeing grants and other monies. In no way do the statutes permit for the establishment of any other public authorities, let alone ones with the power to propose, issue, and repay bonds used to fund a wide variety of infrastructure options.^{xi}

Idaho, unlike North Carolina, has statutes that allow for the statewide establishment of Community Infrastructure Districts. One such CID, the Eagle City CID, has already been briefly discussed. The Idaho legislation, Title 50, Chapter 31, or the Community Infrastructure District Act, is outlined well. The first section of the act describes the purpose of the act and its relationship with other laws. The second through fifth sections of the act illuminate "Definitions," the "Creation of District," "District Organization" and "District Powers," respectively.^{xli} Idaho's 2008 Infrastructure District legislation is well set up, however since we already explored the Rincon Hill ID, we will here examine a more fitting act, California's 1990 Infrastructure Financing District Act. This act is a lengthy and robust one comprised of a well articulated series of statutes, similar to Idaho's Community Infrastructure District Act. However, it is much older and has been utilized more than Idaho's act. The act is comprised of four articles: "General Provisions," "Preparation and Adoption of Infrastructure Financing Plans," "Division of Taxes," and "Tax Increment Bonds." Here we will examine the first article, "General Provisions."

California's 1990 Infrastructure Financing District Act

The introductory section of § 53395 lists the California Legislature's findings at the time of the legislation's enactment. It is noted that "state and federal governments have withdrawn in whole or in part from their former role in financing major, regional, or communitywide infrastructure." This may have been truer at the time of writing in 1990. However it is wise for all authorities at all levels, from municipal to federal, to realize, as has been noted before, that budgets fluctuate. Backup plans are not only sensible and prudent; they are also very much advisable for state governments to sanction and municipal governments to implement.

The second major finding was that infrastructure financing mechanisms "often place an undue and unfair burden on buyers of new homes, especially for public works that benefit the broader community." The third finding is that this lack of "practical and equitable methods for financing" infrastructure often leads to decreased standards for public works, decreased safety for area inhabitants, objection to development that would otherwise be desired, and increased costs for homebuyers.

The fourth and final major finding declares that "it is equitable and in the public interest to provide alternative procedures for financing public works and services" that are needed in order to satisfy the needs of development projects. The next section, § 53395.1 covers definitions. "Affected taxing entity" is used to refer to any applicable entity that levies a tax or taxes. "City" can actually refer to a city, a county, or both a city and a county. This leaves the door open for county IDs and city-county partnerships in the formulation of IDs. "Debt" refers to any binding obligations to repay borrowed monies. "Designated official" refers to the city engineer and "district" means infrastructure financing district, which in turn means "a legally constituted government entity established ... for the sole purpose of financing public facilities." Lastly, "landowner" refers to a person owning land.

The subsequent sections, § 53395.2 and § 53395.3, delineate the ends that district monies may be directed to and what specific projects may be undertaken through these ends. § 53395.2 authorizes IFD revenues to be "used directly for work," "accumulated ... to provide a fund for that work," or "pledged to pay the principal of, and interest on, bonds issued." This section describes the different ways in which revenues may be exhausted. However it should also be noted that there also exist various ways in which an IFD may generate revenue (the California act details these in subsequent articles). Thus far we have discussed bond issuance and tax increment diversion, but there also exists the possibility of revenue generation through special charges such as fees, taxes, or tolls. Highway authorities, for example, may levy tolls, or sanitary authorities may levy fees. These revenues can then be used in the manifold ways permitted by a state's legislation.

§ 53395.3 restricts projects that may be funded by ID monies. The section starts off by stating that an IFD may finance “the purchase, construction, expansion, improvement, seismic retrofit, or rehabilitation of any real or other tangible property with an estimated useful life of 15 years or longer.” IFDs may also finance appropriate planning and design work. It is important to note that the act states that an IFD may only “finance the purchase of facilities for which construction has been completed.” The facilities do not actually have to be located within the district’s boundaries.

IFDs may not fund maintenance, repair, or the costs of any ongoing operation. Furthermore they may not provide services. IFD monies are reserved exclusively for the establishment (whether through purchase or construction) of public goods. The IFD-financed facilities (the public goods) must be “of community wide significance” and must “provide significant benefits to an area larger than the area of the district.” This is very important to understand and appreciate, because although the facilities are being funded by monies from within the IFD, the rest of the municipality, for its part, is sacrificing monies that otherwise would have been deposited into the General Fund.

Conclusions and Recommendations

An infrastructure district comprising Lackawanna and Luzerne Counties should be formed to serve as the lead entity to develop an infrastructure plan that creates an inventory and catalog all forms of infrastructure in the region, perform condition assessments of the infrastructure, perform studies to evaluate existing infrastructure rehabilitation, new system needs and life-cycle cost analysis, and prioritize projects while serving as the conduit for funding and the prioritization and oversight of projects. A policy should be developed to determine how a need becomes a project. With legislative action, the infrastructure district could generate its’ own revenue for maintenance and/or capital projects through imposition of fees similar to municipal authorities.

The Pennsylvania General Assembly, looking to California’s legislation as a model, can implement such legislation with careful, deliberation that will benefit all communities within a particular Infrastructure District, not just the communities that are fortunate enough to “afford it”.

A Pennsylvania infrastructure district act, written according to the General Assembly’s specifications, will enable the municipalities of Pennsylvania to finance much needed infrastructure in an equitable, efficient, and timely manner. Although state and federal grants may still exist to fund many infrastructure projects, the prudent thing to do would be to have such an act in place to allow municipalities to fund normal maintenance or the remaining cost not covered by grants or loans for major projects. Such an act might also reduce the burden

placed on the state for infrastructure financing. California's legislation discusses the use of an infrastructure district for seismic retrofit of structures. Pennsylvania's legislation could emphasize issues more relevant to the citizens of Pennsylvania, such as flood control or sewer infrastructure.

One major issue NEPA faces is that there is no centralized agency or group tasked with identifying, cataloging, and prioritizing infrastructure needs. The MPO serving Luzerne and Lackawanna counties for transportation projects is a good example of the type of organizational structure for a successful Infrastructure District. Most municipalities throughout the two counties that are tasked with identifying numerous infrastructure concerns within their boundaries do not have the resources to complete the assessments, let alone plan for a strategic approach to maintain and improve the infrastructure. For sewage treatment, the Scranton Sewer Authority, the Lower Lackawanna County Sewer Authority and the Wyoming Valley Sanitary Authority have revenue streams that meet their needs for operations and maintenance activities. These stand-alone authorities, with their dedicated streams of revenue, perform much better than the municipalities because they have adequate staff with the expertise for proper oversight of their systems. A natural extension of their responsibilities could be extending their responsibilities to the collection sewers within their treatment area. Their established fees could be raised to cover the sewer maintenance. Municipalities with existing sewer fees would no longer need to collect those fees.

The sewer authorities could also be part of the Infrastructure District but operate from a financial standpoint independently.

As was discussed in the beginning of this report, NEPA needs a body that could publish "infrastructure report cards" similar to those released by the American Society of Civil Engineers. An agency or group that could identify different infrastructure concerns and prioritize the ones that would present the best combination of varied benefits to residents of NEPA. These prioritized infrastructure projects could generate jobs, improve safety, decrease environmental impact, increase efficiency, and produce various other positive benefits for NEPA's population, economy and environment.

This, along with the infrastructure district legislation and coordination of Pennsylvania's existing infrastructure financing mechanisms, would be extremely beneficial to the Commonwealth and NEPA in particular.

PIB is currently being underutilized. As was mentioned before, PIB has a \$30 million dollar annual loan program and during fiscal year 2010 – 2011, PIB only granted loans worth a total value of \$27.6 million. It is also implied that if and when funding needs change, this amount may change in order to better supply the needs of Pennsylvania's infrastructure.^{xlii} Conversely,

PENNVEST seems to be over utilized and too heavily relied on. There were in fiscal years 2009 – 2010 and 2010 - 2011 much higher levels of demand for water infrastructure funding than PENNVEST was able to satisfy.^{xliii}

Pennsylvania should increase funding opportunities for infrastructure, particularly drinking water, storm water, and wastewater infrastructure. The PIB, PENNVEST, and DCED budgets should be closely analyzed. If the PENNVEST budget is not increased to satisfy Pennsylvania’s high demand for infrastructure funding, other financing mechanisms should be considered.

Advantages and Disadvantages of Infrastructure Districts

Advantages:

- Creates a single public entity responsible in perpetuity for the capital, operations, and maintenance of infrastructure in the District, with some exceptions as noted above.
- High quality of expertise associated with planning/projects located in the Districts
- Provides efficient use of tax dollars.
- Prevents needless proliferation, duplication, and fragmentation of multiple governments and the cross boundary disputes which naturally develop.
- Provides a timely, efficient, effective, responsive, and economic way to deliver basic community infrastructure and services.
- “Growth pays for Growth” – provides a better vehicle to have additional infrastructure required for new growth to be paid for entirely or in part by the new growth and not the local government and its existing residents.
- The indebtedness of the District will not constitute a liability of the local government.

Possible Financial Advantages to the Developers:

- Debt structures may be made available to developers to for both long-term and/or short-term financing
- Municipal Bonds could provide tax-exempt, low cost financing
- District Bonds are easily marketable to the investor community.

Non-Financial Advantages to the Developer:

- Allows for flexibility in project staging.
- Better infrastructure data available for planning purposes.
- Fewer jurisdictional disputes which delay and add costs to developers’ projects

Advantages to the Residents

- Districts are governmental agencies with all the benefits of public corporations.
- Ensure accountability of public resources. Districts are held to high standards.
- Districts are accountable to landowners/residents as their boards are appointed by the local governments of jurisdiction to represent the interest of the community and operate in the open.

- Protect residents from failure by the Developer- Districts can readily provide infrastructure and community services even if the Developer fails thru performance bonds as part of the Land Development approval process.
- Protect residents who pay from those that do not. With foreclosure powers for nonpayment of assessments, residents/landowners who do not pay do not negatively impact those who do.
- Ensure that residents only pay for the amount of benefit they receive for as long as they receive it. Landowners pay only for the infrastructure and services that they receive within the district.
- Provides for an orderly transition after developers leave. As the District operates, and maintains community infrastructure, there are no problems with a transition after the Developer leaves.
- Provide a cost-effective mechanism to provide community infrastructure. Low-cost financing and the ability to finance it over long-term provide for affordable and high-quality improvements on a district-wide level as well as local municipality level.
- Long-Term District financing matches the useful life of the infrastructure assets by utilizing twenty and thirty year financing. The District can spread the cost of improvements over a longer period than that provided with conventional financing, minimizing annual landowner/resident payments.

Appendix

Case Studies

Schuylkill County Municipal Authority

The Schuylkill County Municipal Authority (SCMA) was formed by the Schuylkill County Commissioners in 1961¹ and is the largest sanitary service provider in Schuylkill County. However, unlike the WVSA, in addition to water treatment services, the SCMA also provides drinking water to county residents.¹ They handle both the county's waste water treatment and drinking water needs. In 2011, the SCMA "successfully secured financing for the Deer Lake Wastewater Treatment Plant, Pumping Stations, and Collection System Project through a \$4 million grant from the Commonwealth Financing Authority (CFA), a \$1.5 million grant from PENNVEST and a \$12.5 million low-interest PENNVEST loan."¹

The PENNVEST project search portal offers more information on this project, the Deer Lake Sanitary Sewer System Expansion and Upgrades project. The loan of \$12,454,430 has an interest rate of 1% and a term of 262 months. The portal describes the project's scope as including "the consolidation of several small treatment plants, the upgrade and expansion of an existing plant, and the construction of several miles of new sewers."¹

Eagle City Community Infrastructure District (CID)

Eagle City, Idaho, on March 27, 2012, established a Community Infrastructure District to fund infrastructure necessitated by a new development, Spring Valley, a 5,610-acre residential development. A meeting was held at City Hall on November 7, 2012 to discuss the CID, which is still in early stages. Developers were pushing to have the issue placed on the November ballot, however, three Eagle City council members who sit on the Spring Valley CID board have told developers they must wait until May.

The city's attorney and council members claimed that the developer's plans came too late and that the district's board would not have enough time to review the bond proposal's specifics. The board voted unanimously to wait until the May election, when property owners will have the chance to vote on the bond issuances; this would bring the CID to actual fruition, and it would no longer merely be a proposed plan. Spring Valley voters would include M3, the developer that holds the property, an M3 employee, and two renters already on the property. Up to \$250 million can be sought by the district in general obligation bonds and \$75 million in revenue bonds.^{1 1 1}

Rincon Hill Infrastructure Financing District (IFD)

The Rincon Hill Infrastructure Financing District, as California's first IFD, has been implemented in the Rincon Hill neighborhood of San Francisco in order to fund infrastructure improvements that area residents feel have been lacking for quite some time. Rincon Hill has for some time been experiencing rapid commercial growth but has not had the infrastructure development that ought to complement this because of insufficient funds in the city's general fund. In early 2011 however, the San Francisco's Board of Supervisors took steps to address this, as they "passed seven resolutions and adopted one new ordinance clearing the way for the Rincon Hill area" to have its infrastructure revived over a 30-year period.

At least three new parks and street improvements are included in the scope of the IFD, which is focused on seventeen commercial sites that make up ten potential project sites. The total cost of all the proposed infrastructure projects is estimated to be \$32 million. Impact fees are projected to cover \$16.5 million, while \$15.4 million is to be funded by the proposed Rincon Hill IFD bonds. However \$42 million in total will be needed throughout the 30-year IFD period to pay off the IFD bonds.¹ The Epoch Times article falsely claims that the Rincon Hill Infrastructure District is the first Infrastructure District being undertaken in California. In fact there have been IFDs in the past. One such IFD, in the city of Carlsbad, was established in 1999 and comprised 200 acres. Its purpose was to fund infrastructure for the surrounding area of a new hotel by the city's Legoland amusement park.^{1 1}

Regarding the finances of the IFD, the city commissioned and in 2010 received a comprehensive Infrastructure Financing and Fiscal Impact report delineating how the bonds would be repaid and providing a timetable for this repayment. After providing for "future inflation and a 25% contingency factor for the cost of the facilities," it was calculated that the cost for the 30 year IFD plan would not exceed \$60.2 million. This \$60.2 million is a nominal dollar cap. It is expected that total IFD expenses will only be \$53 million, with \$15.4 million reserved for infrastructure development and \$37.6 million reserved to pay off the bond debt.

The report details projected tax revenues and indicates that during the fourth year, tax revenue is expected to increase. From this point onward, each year will witness a smaller proportion of General Fund (GF) taxes being diverted to the IFD. While the ordinance permits for up to 100% of the incremental increases to be diverted to the IFD, the \$60.2 million cap mentioned earlier is immovable and represents the upper limit of the project's cost. However, according to the report's projections, total IFD revenues in the amount of \$56,839,238 minus total IFD expenditures of \$53,074,063 will result in a net IFD cash flow of \$3,765,175. Thus both the ordinance and the report acknowledge the possibility that the project will cost less or more than is expected, and each allow for a sort of "buffer" in each direction, surplus or deficit.

Eventually the GF will be receiving more than it did at the start of the project. By the end of the 30-year IFD ordinance, the city is expected to experience roughly \$256 million in tax revenue increases. There is no projected increase in revenue for the first three years. However, as was previously mentioned, during the fourth fiscal year, 2014-2015, it is estimated that there will be a General Fund property tax increment of \$565,900. The increment for 2015-2016 is expected to be \$847,490. However, for both these years, 100% of the incremental increase is to be diverted from the GF to the IFD.

The fiscal years of 2016-2017 and 2017-2018 however, are estimated to see \$2,284,027 and \$3,931,543 incremental increases. The amount to be diverted to the IFD however, will be only 71% and 41%, respectively (for a total of \$1,611,405 each year). Starting with the sixth fiscal year (2016-2017), this \$1.6 million is the amount that will be diverted from the GF. Since the GF is expected to witness continual increases in revenue, the diverted percentage is expected to further decrease to 29%, 24%, 18%, and 16%, before hitting a floor of 14%. If all goes according to plan, this 14% diverted percentage will persist until the 30th year, with the remaining 86% (an annual \$9.8 million) remaining in the General Fund's coffers. Over 30 years, these projected incremental increases will total and yield over \$200 million for the General Fund.¹

The Rincon Hill infrastructure district came about after the city and its government recognized the need for a new infrastructure financing mechanism. After initially discussing and proposing an infrastructure district, the San Francisco-based real estate advisory firm Keyser Marston Associates was commissioned to draft a fiscal impact report^{1 1}. The city's planners and financial specialists then collaborated with the developers' planners and financial specialists^{1 1}. The website "Rincon Hill CBD" (<http://www.rinconhillcbd.org>) includes information on the IFD along with monthly meeting dates and locations.¹

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