Section 5
Incentives Evaluation
INCENTIVES EVALUATION

This section summarizes the funding opportunities and incentive programs that may be available to assist in the South Park Road Redevelopment project.

Introduction
Langan reviewed available federal, state, and local programs when sufficient information was available to evaluate the program and determine its potential applicability to redevelopment of the site. Additionally, Langan reviewed programs that have the potential to attract private business investment and promote job creation and growth of the local economy. While the list of programs in this report is extensive, it represents those programs and opportunities that were identified in a reasonable amount of time. It is possible that additional programs currently exist that are not summarized herein.

The programs summarized herein are subject to change in accordance with the rules, laws, and regulations governing those programs. The information summarized in this report is accurate according to the publicly available information and the veracity thereof is the sole responsibility of entity providing such information.

This report includes grants, tax incentives, loans, and other financial instruments available to support remediation and redevelopment projects within Brownfield Areas. Each grant, loan, refund, and credit summary includes as much information as possible; however, the level of effort and potential costs associated with applying for any grant are variable and depend on the project for which funding is being requested.

Langan has identified eight opportunity categories:

1. Department of Economic Opportunity Development Incentives;
2. Recreation/Land Acquisition for Conservation and Outdoor Recreation;
3. Economic Development;
4. Brownfield Programs;
5. Water Quality Improvement Programs;
6. Job Training and Workforce Development; and
7. Housing and Community Development.

The following sections identify funding opportunities and incentive programs that are applicable to the redevelopment of the site and include as much information as was available for each opportunity or program.

Department of Economic Opportunity Development Incentives
Florida Department of Economic Opportunity (FDEO) Economic Incentive programs are intended to expand and diversify Florida’s economy through job creation. The FDEO works with its partners, including Enterprise Florida, Inc. (Enterprise Florida or EFI), to attract and retain busi-
nesses by offering economic development incentives. Through responsible economic development, these incentive programs will ensure Florida is able to address specific needs as they arise for projects considering new job creation and investment opportunities.

**Brownfield Redevelopment Bonus Refunds**

These refunds are intended to spur job creation and capital investment in designated brownfield areas in Florida.

- **Funding Source:** State.
- **Eligible Applicants:**
  - A qualified target industry business; or
  - A business that can demonstrate a fixed capital investment of at least $2 million in mixed-use business activities, including multiunit housing, commercial, retail, and industrial in brownfield areas, or at least $500,000 in brownfield areas that do not require site cleanup, and which provides benefits to its employees.
- **Eligibility Requirements:**
  - The creation of at least 10 new full-time permanent jobs. Such jobs shall not include construction or site rehabilitation jobs associated with the implementation of a brownfield site agreement.
  - The completion of a fixed capital investment of at least $2 million in mixed-use business activities, including multiunit housing, commercial, retail, and industrial in brownfield areas eligible for bonus refunds, by an eligible business that provides benefits to its employees.
- **Maximum Amount:** For each new job created, approved applicants will receive a onetime tax refund up to $2,500. The amount of the refund shall be equal to 20 percent of the average annual wage for the jobs created.
- **Match Requirements:** The city or county commission recommending the applicant for the incentive and, at the option of the city or county, committing the community to provide a local match equaling 20 percent of the tax refund. If a community elects to be exempt from the local match requirement, the applicant is only eligible for 80 percent of the refund for which they would otherwise qualify.
- **Special Considerations:** All Brownfield Bonus projects include a performance-based contract with the State of Florida, which outlines specific milestones that must be verified by the State before payment of refunds.
- **Application Deadline:** Rolling, apply to Enterprise Florida, Inc.
- **Website:**
- **Regulatory Reference:** Florida Statute 288.107.
Capital Investment Tax Credit (CITC)
The CITC is used to attract and grow capital-intensive industries in Florida. It is an annual credit, provided for up to 20 years, against the corporate income tax.

- Funding Source: State.
- Eligible Applicants: Any business that establishes a qualifying project and that is certified by the Department of Economic Opportunity to receive tax credits.
- Eligible Activities: All expenses incurred in the acquisition, construction, installation, and equipping of a project from the beginning of construction to the beginning of operations.
- Eligibility Requirements:
  - Cumulative capital investment of at least $25 million
  - Projects in designated high-impact portions of the following sectors: clean energy, biomedical technology, financial services, information technology, silicon technology, transportation equipment manufacturing, or be a corporate headquarters facility.
  - A new or expanding facility in this state that creates at least 100 new jobs in this state and is in one of the high-impact sectors identified by Enterprise Florida, Inc., and certified by the Department of Economic Opportunity; or
  - A new or expanded facility in this state that is engaged in a target industry and that is induced by this credit to create or retain at least 1,000 jobs in this state, provided that at least 100 of those jobs are new, pay an annual average wage of at least 130 percent of the average private sector wage in the area, and make a cumulative capital investment of at least $100 million; or
  - A new or expanded headquarters facility in this state that locates in an enterprise zone and brownfield area and is induced by this credit to create at least 1,500 jobs, which on average pay at least 200 percent of the statewide average annual private sector wage, as published by the Department of Economic Opportunity, and which new or expanded headquarters facility makes a cumulative capital investment in this state of at least $250 million.

* Eligible capital costs shall not include the cost of any property previously owned or leased by the qualifying business.

- Maximum Amount: Credits of annual corporate income tax liability or the premium tax liability vary. The percentage of the project’s tax liability that can be offset with the credits is determined by the eligible capital costs
  - 100 percent of tax arising out of the project for a qualifying projects that result in a cumulative capital investment of at least $100 million.
75 percent of tax arising out of the project for a qualifying projects that result in a cumulative capital investment of at least $50 million but less than $100 million.

50 percent of tax arising out of the project for a qualifying projects that result in a cumulative capital investment of at least $25 million but less than $50 million.

- Application Deadline: Rolling.

**Qualified Target Industry (QIT) Tax Refund**

The QIT Tax Refund incentive is available for companies that create high wage jobs in targeted high value-added industries. This incentive includes refunds on corporate income, sales, ad valorem, intangible personal property, insurance premium, and certain other taxes.

- Funding Source: State and Local Community.
- Eligible Applicants: Applicant must be certified as a qualified target industry business that originate or expand in the state or that relocate to the state
- Eligibility Requirements:
  - A resolution adopted by the governing board of the county or municipality in which the project will be located, which resolution recommends that the project be approved as a qualified target industry business and specifies that the commitments of local financial support necessary for the target industry business exist.
  - The jobs proposed to be created under the application must pay an estimated annual average wage equaling at least 115 percent of the average private sector wage in the area where the business is to be located or the statewide private sector average wage (waivers available).
  - The project must result in the creation of at least 10 jobs at the project and, in the case of an expansion of an existing business, must result in a net increase in employment of at least 10 percent at the business.
- Match Requirements: The local community where the company locates contributes 20 percent of the total tax refund.
- Maximum Amount: Varies. Up to $1.5 million in refunds under this section in any single fiscal year, or more than $2.5 million in any single fiscal year if the project is located in an enterprise zone. No more than 25 percent of the total refund approved may be taken in any single fiscal year.
- Application Deadline: Rolling.
Recreation/Land Acquisition For Conservation And Outdoor Recreation

The programs summarized in this section are intended to provide funding for projects that acquire land to conserve its unique natural and cultural resources and expand Florida’s greenways.

**Florida Greenways & Trails Program**

Funding to acquire lands to facilitate the establishment of a statewide system of greenways and trails made available through the Florida Department of Environmental Protection Florida Forever Act.

- **Funding Source:** State.
- **Eligible Applicants:** Federal, state, and local governments; nonprofit organizations and individuals.
- **Project Eligibility:**
  - Applicants must receive a Certificate of Eligibility from the Office of Greenways and Trails. (This form may be submitted at any time during the year, and is valid for 12 months from the date of issuance by the Office of Greenways and Trails.)
  - The project must meet the minimum requirements of being a trail or a greenway.
  - The planned project must be located within or adjacent to at least one opportunity segment on one or more of the Recreational Prioritization Maps.
  - There must be a seller willing to negotiate and a willing manager. Willing Manager and Willing Owner Certificates must be submitted to the Office of Greenways and Trails.
- **Match Requirements:** Variable and dependent upon applicant type, increased match funding increases application score.
  - Match between 40 percent to 49 percent of the project costs, or, for small local governments, and eligible nonprofit applicants, a match between 10 percent and 19 percent of the project costs; or
  - Provide a match between 50 percent to 59 percent of the project costs, or, for small local governments, and eligible nonprofit applicants a match between 20 percent and 29 percent of the project costs; or
  - Provide a match for 60 percent or more of the project costs, or, for small local governments, and eligible nonprofit applicants, a match for 30 percent or more of the project costs.
Recreational Trails Program (RTP)
The RTP is a competitive program that provides grants for projects that provide, reno-
vate, or maintain recreational trails or trailhead and trailside facilities. Off-road vehicle fuel taxes made available through the Federal Highway Administration provide funds for projects that create, renovate, or maintain recreation trails (motorized, non-motorized, and mixed trails).

- Funding Source: Federal, state administered.
- Eligible Applicants: Municipal or county governments, state or federal gov-
  ernmental agencies, recognized state and federal Indian tribal governments, and organizations approved by the State.
- Project Eligibility: Construction of new recreational trails (with restrictions for new trails on federal lands); maintenance and restoration or renovation of existing recreational trails; development and rehabilitation of trailside and trailhead facilities and recreational trail linkages.
- Match Requirements: 50/50, 60/40 or 80/20 match is required.
  - Cash or in-kind services are acceptable for use as matching funding.
  - Federal agencies may match grant funds with federal funds up to 95 percent of total project cost.
- Maximum Amount: The current maximum grant amount for mixed use pro-
  jects and non-motorized projects is $200,000. The maximum grant award amount for motorized projects it is $500,000.
- Application Deadline: Varies annually (spring). Contact: Robin Birdsong, email: robin.birdsong@dep.state.fl.us.
- Website: http://www.dep.state.fl.us/gwt/grants/.
Florida Recreation Development Assistance Program (FRDAP)
The FRDAP is a state competitive grant program that provides financial assistance to local governments to develop or acquire land for public outdoor recreation.

- Funding Source: State.
- Eligible Applicants: All county governments, municipalities, and other legally constituted local governmental entities responsible for providing outdoor recreational sites and facilities for the general public.
- Eligible Sites: The site shall be owned by the applicant, or shall be under lease to the applicant for a period of time sufficient to satisfy the dedication period required by the rule, by the submission period deadline. Exceptions apply.
- Eligible Activities: Appraisals, appraisal reviews, surveys (boundary and topographic), Title 16 searches and project signs, project planning expenses, such as application preparation, architectural and engineering fees, permitting fees, project inspection, and other similar fees, are eligible project costs provided that such costs do not exceed fifteen percent of the project cost, land acquisition, site development, trail construction.
- Maximum Award: $200,000.
- Match Requirements: Match can be cash, in-kind services, and land.
  - Project total: $50,000 or less, 0 percent.
  - Project total: $50,001-150,000, 25 percent.
  - Project total Over $150,000, 50 percent.
- Application Deadline: Varies dependent upon state budget approval.
- Contacts: Linda Reeves, email: linda.reeves@dep.state.fl.us.
- Regulatory Reference: Florida Statute 375.075.

Land and Water Conservation Fund
The fund provides grants for the acquisition or development of land for public outdoor recreation use.

- Funding Source: U.S. Department of the Interior, National Park Service (state-administered).
- Eligible Applicants: the applicant must own the project site or lease it from a public agency by the closing date of the application submission period. Land owned or leased by the applicant must be dedicated in perpetuity as a public outdoor recreation area.
- Eligible Activities:
  - Development: Outdoor recreation areas and facilities such as beaches, picnic areas, trails, ball fields, tennis and basketball courts, and playgrounds along with associated support facilities such as lighting, parking, restrooms, and landscaping.
o Acquisition: Land for outdoor recreational purposes.

- Maximum Amount: Varies annually.
- Match Requirements: 50 percent. Match can be cash, in-kind services, and land.
- Application Deadline: February.

ECONOMIC DEVELOPMENT

Programs summarized in this section are intended to attract new business opportunities, expand existing businesses and provide incentives and funding to promote job creation and economic growth.

Economic Development Administration (EDA), Economic Development Assistance Programs (EDAP)

Funding through these programs provides strategic investments on a competitive-merit-basis to support economic development, foster job creation, and attract private investment in economically distressed areas. The EDA solicits applications from rural and urban communities to develop initiatives that advance new ideas and creative approaches to address rapidly evolving economic conditions.

- Funding Source: Federal (EDA, Department of Commerce).
- Eligible Projects:
  - A range of construction and non-construction activities (including infrastructure, design and engineering, technical assistance, economic recovery strategies, and capitalization or re-capitalization of Revolving Loan Fund projects) in regions experiencing severe economic dislocations that may occur suddenly or over time.
  - Projects may include planning, coordinating the use of federal resources available to support economic development recovery, and developing regionally focused economic recovery and growth strategies.
- Eligible Applicants: Native American tribal governments, nonprofits having a 501(c)(3) status with the IRS, other than institutions of higher education, special district governments, state governments, public and state controlled institutions of higher education, county governments, city or township governments, private institutions of higher education, nonprofits that do not have a 501(c)(3) status with the IRS, other than institutions of higher education. (Individuals or to for-profit entities seeking to start or expand a private business are not eligible.)
- Eligibility Requirements:
  - The project must be located in a region that meets EDA’s distress criteria as of the date EDA receives the application.
  - For construction projects (including design and engineering), the project must be located within an eligible region.
For non-construction projects, the investment’s scope of work must primarily benefit an eligible region and stakeholders from that eligible region must be directly engaged.

- **Match Requirements:**
  - Generally, the amount of an EDA award may not exceed 50 percent of the total cost of the project. Projects may receive an additional amount that may not exceed up to 30 percent of the total project cost, based on the relative needs of the region in which the project will be located, as determined by EDA.
  - In general, EDA’s maximum investment rate (percent of the total project cost) is determined by the average per capita income or unemployment rate of the region in which the project is located.

- **Maximum Amount:** Varies, $100,000 to $1.25 million.

- **Application Deadline:** Varies annually. Currently, March 12, 2015 for funding Cycle 2 of FY 2015; and June 12, 2015 for funding Cycle 3 of FY 2015.

- **Website:** [http://www.eda.gov/funding-opportunities/](http://www.eda.gov/funding-opportunities/)

### Planning Program and Local Technical Assistance Program

Under the Planning program, EDA assists eligible recipients in creating regional economic development plans designed to stimulate and guide the economic development efforts of a community or region. As part of this program, EDA supports Partnership Planning investments to facilitate the development, implementation, revision, or replacement of Comprehensive Economic Development Strategies (CEDS), which articulate and prioritize the strategic economic goals of recipients’ respective regions.

- **Funding Source:** Federal (Department of Commerce, Economic Development Administration).

- **Eligible Applicants:** City or township governments, Nonprofits having a 501(c)(3) status with the IRS, other than institutions of higher education, Public and State controlled institutions of higher education, Private institutions of higher education, State governments, Nonprofits that do not have a 501(c)(3) status with the IRS, other than institutions of higher education, Native American tribal governments (Federally recognized), and County governments.

- **Eligible Activities:**
  - Partnership planning investments to facilitate the development, implementation, revision, or replacement of comprehensive economic development strategies.
  - Feasibility studies, impact analyses, disaster resiliency plans, and project planning.

- **Maximum Amount:** up to $100,000.

- **Match Requirements:** 20 percent to 50 percent of the project.

- **Application Deadline:** Applications are accepted on a continuing basis and processed as received.
High Impact Performance Incentive Grant (HIPI)
The HIPI is a negotiated grant used to attract major high impact facilities in Florida.

- Funding Source: State.
- Eligible Applicants: Businesses in one of the high-impact sectors identified by Enterprise Florida, Inc., and certified by the department.
- Eligible Activities: Investment in buildings and equipment made by a qualified high-impact business since the beginning of construction of such facility.
- Maximum Amount: Highly variable. Up to $4.5 million.
- Eligibility Requirements:
  - A cumulative investment in the state of at least $50 million and creating at least 50 new full-time equivalent jobs in the state; or
  - A research and development facility making a cumulative investment of at least $25 million and creating at least 25 new full-time equivalent jobs.
  - Investment and employment must be achieved in a period not to exceed three years after the date the business is certified as a qualified high-impact business.
- Application Deadline: Rolling.

Innovation Incentive Program (Grant)
The Innovation Incentive Program is created within the Department of Economic Opportunity to ensure that sufficient resources are available to allow the state to respond expeditiously to extraordinary economic opportunities and to compete effectively for high-value research and development, innovation business, and alternative and renewable energy projects.

- Funding Source: State.
- Eligible Applicants: Innovation businesses expanding or locating in this state that are likely to serve as a catalyst for the growth of an existing or emerging technology cluster or will significantly impact the regional economy in which it is to expand or locate.
- Eligible Activities: The cumulative capital investment and all eligible capital costs, as defined in Florida Statute 220.191 associated with the location to or expansion in this state by an innovation business, a research and development applicant, or an alternative and renewable energy applicant.
- Eligibility Requirements:
The jobs created by the project must pay an estimated annual average wage equaling at least 130 percent of the average private sector wage. (The department may waive this average wage requirement at the request of Enterprise Florida, Inc., for a project located in a rural area, a brownfield area, or an enterprise zone.)

A research and development project must:

- Serve as a catalyst for an emerging or evolving technology cluster.
- Demonstrate a plan for significant higher education collaboration.
- Provide the state, at a minimum, a cumulative break-even economic benefit within a 20-year period.
- Be provided with a one-to-one match from the local community. The match requirement may be reduced or waived in rural areas of opportunity or reduced in rural areas, brownfield areas, and enterprise zones.

An innovation business project in this state, other than a research and development project, must:

- Result in the creation of at least 1,000 direct, new jobs at the business; or
- Result in the creation of at least 500 direct, new jobs if the project is located in a rural area, a brownfield area, or an enterprise zone.
- Have an activity or product that is within an industry that is designated as a target industry business or a designated sector under.
- Have a cumulative investment of at least $500 million within a 5-year period; or
- Have a cumulative investment that exceeds $250 million within a 10-year period if the project is located in a rural area, brownfield area, or an enterprise zone.
- Be provided with a one-to-one match from the local community. The match requirement may be reduced or waived in rural areas of opportunity or reduced in rural areas, brownfield areas, and enterprise zones.

For an alternative and renewable energy project in this state, the project must:

- Demonstrate a plan for significant collaboration with an institution of higher education.
- Provide the state, at a minimum, a cumulative break-even economic benefit within a 20-year period.
- Include matching funds provided by the applicant or other available sources. The match requirement may be reduced or
waived in rural areas of opportunity or reduced in rural areas, brownfield areas, and enterprise zones.

- Be located in this state.
- Provide at least 35 direct, new jobs that pay an estimated annual average wage that equals at least 130 percent of the average private sector wage.

*To be eligible for consideration for an innovation incentive award, an innovation business, a research and development entity, or an alternative and renewable energy company must submit a written application to the department before making a decision to locate new operations in this state or expand an existing operation in this state.

- Match Requirements: Funding from local sources, public or private, which will be paid to the applicant and which is equal to 100 percent of an award. Eligible match funding may include any tax abatement granted to the applicant under Florida Statute 196.1995 or the appraised market value of land, buildings, infrastructure, or equipment conveyed or provided at a discount to the applicant.

- Reinvestment Requirements:
  - Each recipient of an award shall reinvest up to 15 percent of net royalty revenues during the 20 years following the effective date of its agreement with the Department of Economic Opportunity. Each recipient of an award also shall reinvest up to 15 percent of the gross revenues it receives from naming opportunities associated with any facility it builds in this state.
  - Reinvestment payments shall commence no later than 6 months after the recipient of the grant has received the final disbursement under the contract and shall continue until the maximum reinvestment, as specified in the contract, has been paid.

- Maximum Amount: None listed.
- Application Deadline – Annual appropriation.
- Regulatory Reference: Florida Statute 288.1089.

**Brownfield Programs**

Programs summarized in this section are specific to sites that qualify as brownfields. Funding opportunities are available for various site activities including assessment and remediation.

**Brownfields Cleanup Revolving Loan Fund**

The Eastward Ho! Initiative was established in 1995 to direct future growth to the region’s urban core and away from the threatened Everglades ecosystem to the west and is comprised of local, state, regional, and federal government agencies, as well as public, private and nonprofit community organizations in southeast Florida.
- Website: www.sfrpc.com.
- Funding Source: U.S. EPA.
- Eligible Activities: Local governments, nonprofit, and for-profit parties involved in brownfields cleanup projects.
- Match Requirements – Negotiable.
- Maximum Amount: $500,000.
- Application Deadline: Rolling.
- Contact: Isabel Cosio Carballo, email: isabelc@sfrpc.com.

**Targeted Brownfields Assessment or a Site-Specific Activity Program**

Targeted Brownfields Assessments (TBAs) and Site-Specific Activities (SSAs) supplement and work with other efforts under EPA’s Brownfields Initiative and Florida’s Brownfields Redevelopment Program to promote cleanup and redevelopment of brownfields.

*Note: The State of Florida will conduct a Site-Specific Activity for eligible applicants and not a Targeted Brownfield Assessment.*

- Funding Source: U.S. EPA (CERCLA Section 128(a)).
- Eligible Applicants: Eligible applicants include a person who is or may be affected by a release or threatened release of a hazardous substance, pollutant, or contaminant at a brownfield site located in the community in which the person works or resides; local governments; nonprofit organizations and nonprofit educational institutions; private property owners; prospective property owners; and government entities, including any general purpose unit of local government or other quasi-governmental entity operating under the control, supervision or as an agent of a local government, a governmental entity or redevelopment agency created or sanctioned by the State or a regional planning council.
- Eligibility Requirements:
  - The property meets the definition of a federal brownfields site.
  - The site must be contaminated or suspected to be contaminated with hazardous substances.
  - Sites contaminated only with petroleum products are not eligible for assistance.
  - EPA generally will not fund TBAs at sites where the owner is responsible for the contamination on the site unless there is a clear means of recouping EPA expenditures.
  - The TBA program does not provide resources to conduct cleanup or building demolition activities.
  - Funds cannot be used for assessments or cleanups at sites that do not meet the definition of a brownfield site at CERCLA 101(39).
The applicant has obtained legal permission to access the subject property by attaching a completed site access agreement.
The applicant has demonstrated the willingness and ability to complete the project within the budget period.
The applicant has a locally-approved redevelopment plan in place for the subject property.

- **Eligible Activities:**
  - A screening (Phase I) assessment, including a background and historical investigation and a preliminary site inspection.
  - A full (Phase II) site assessment, including sampling activities to identify the types and concentrations of contaminants and the areas of contamination to be cleaned.
  - Establishment of cleanup options and cost estimates based on future uses and redevelopment plans.
  - Limited cleanups.

- **Maximum Amount:**
  - Up to $200,000 per site can be funded for assessments.
  - Up to $200,000 per site can be funded for cleanups.

- **Website:** [http://www.dep.state.fl.us/waste/categories/brownfields/](http://www.dep.state.fl.us/waste/categories/brownfields/).
- **Regulatory Reference:** Florida Statute 376.84.

### Voluntary Cleanup Tax Credit

Encourages participants to conduct voluntary cleanup of certain dry-cleaning solvent contaminated sites and brownfield sites in designated brownfield areas.

- **Funding Source:** State.
- **Eligible Activities:**
  - Costs related to solid waste removal.
  - Site rehabilitation.
- **Match Requirements:** Credits as summarized below.

<table>
<thead>
<tr>
<th>Application Frequency</th>
<th>Site Rehabilitation Completion Order (NFA) Bonus</th>
<th>Affordable Housing Bonus</th>
<th>Health Care Bonus</th>
<th>Solid Waste</th>
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<tr>
<td>Maximum Credit for Costs Incurred and Paid from 07/01/1998 to 06/30/2006</td>
<td>35 percent; $250,000</td>
<td>10 percent; $50,000</td>
<td>N/A</td>
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<tr>
<td>Maximum Credit for Costs Incurred and Paid after 06/30/2006</td>
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<td>25 percent; $500,000</td>
<td>25 percent; $500,000</td>
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<tr>
<td>Maximum Credit for Costs Incurred and Paid after 12/31/2007</td>
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<td>25 percent; $500,000</td>
<td>25 percent; $500,000</td>
<td>50 percent; $500,000</td>
</tr>
</tbody>
</table>
*Site Rehabilitation tax credits can only be applied for and paid back in the following fiscal year. This means that any site rehabilitation purchases in the fiscal year of 2014 must be on the application due on January 31, 2015. Purchases made in years before 2014 cannot be on this tax credit application.

- Maximum Amount: Refer to preceding table.
- Application Deadline: Rolling and End of Fiscal Year.
- Contact: Teresa Booeshaghi, email: Teresa.Booeshaghi@dep.state.fl.us.
- Regulatory Reference: 376.30781.

Brownfields Assessment Grant
Grants administered through this program may be used to address sites contaminated by petroleum and hazardous substances, pollutants, or contaminants (including hazardous substances co-mingled with petroleum).

- Funding Source: U.S. EPA.
- Eligible Applicants: General purpose unit of local government, land clearance authority or other quasi-governmental entity that operates under the supervision and control of, or as an agent of, a general purpose unit of local government, government entity created by state legislature, regional council or group of general purpose units of local government, redevelopment agency that is chartered or otherwise sanctioned by a state, Indian tribe other than in Alaska.

*Nonprofit organizations are not eligible to apply for an assessment grant.

- Eligible Activities: Inventory, characterize, assess, and conduct planning (including cleanup planning) and community involvement related to brownfield sites.
- Maximum Amount: Up to $200,000 over three years; assessment coalitions are funded up to $600,000 over three years.
- Match Requirements: None. Cost sharing is voluntary.
- Application Deadline: Varies. Announcement typically in the fall, submission deadline in early December.
- Website: [http://www.epa.gov/brownfields/applicat.htm#a](http://www.epa.gov/brownfields/applicat.htm#a).

Brownfields Cleanup Grants
Cleanup grants provide funding to carry out cleanup activities at specific brownfield sites owned by the applicant.
Funding Source: U.S. EPA.
Eligible Applicants: General purpose unit of local government, land clearance authority or other quasi-governmental entity that operates under the supervision and control of, or as an agent of, a general purpose unit of local government, government entity created by state legislature, regional council or group of general purpose units of local government, redevelopment agency that is chartered or otherwise sanctioned by a state, Indian tribe other than in Alaska.
Eligible Activities: Cleanup activities at a specific brownfield site owned by the applicant. Grant funds may be used for direct costs associated with programmatic management of the grant, such as required performance reporting, cleanup oversight, and environmental monitoring of cleanup work.
Maximum Amount: Up to $200,000 per brownfield site.
Match Requirements: None. Cost sharing is voluntary.
Application Deadline: Varies. Announcement typically in the fall, submission deadline in December.
Website: http://www.epa.gov/brownfields/applicat.htm#a.

Brownfields Area-Wide Planning Grants
Funding made available through this program is intended to provide successful applicants with grant funding to conduct research, technical assistance, or training activities that will enable them to develop a brownfields area-wide plan, which must be for a specific project area that is of appropriate and reasonable size and have a demonstrable link to brownfield site(s). The applicant’s proposed area-wide plan must primarily focus on the eventual cleanup and reuse of the catalyst, high priority brownfield site(s) that the applicant identifies within the project area.

Funding Source: U.S. EPA.
Eligible Applicants: General purpose unit of local government, Land clearance authority or other quasi-governmental entity that operates under the supervision and control of, or as an agent of, a general purpose unit of local government, regional council or group of general purpose units of local government, government entity created by state legislature, redevelopment agency that is chartered or otherwise sanctioned by a state, a state that is serving in a fiscal and administrative capacity on behalf of a local community, where the local community leads the brownfields area-wide process, federally recognized Indian tribal government, U.S. territories and possessions, and nonprofit organizations.
• Eligible Activities: Activities designed to identify reuses for brownfield sites that will meet community health, environmental and economic development goals. Examples include:
  o Facilitating community involvement activities that lead to the identification of community priorities related to near- and long-term brownfield site cleanup, reuse and area revitalization.
  o Conducting research into the existing conditions of the brownfield site(s) and project area.
  o Developing a detailed brownfields area-wide plan.
• Technical assistance that builds local community capacity for a range of project area stakeholders.
• Maximum Amount: Up to $200,000 for up to 2 years.
• Match Requirements: None. Cost sharing is voluntary.
• Application Deadline: Varies. Typically in the fall.
• Website: [http://www.epa.gov/brownfields/applicat.htm#a](http://www.epa.gov/brownfields/applicat.htm#a).

**Water Quality Improvement Programs**
Funding opportunities summarized in this section provide mechanisms for organizations to preserve water and maintain water quality.

**Section 319 Nonpoint Source Management Program**
Funds from this program are used to implement projects that are intended to reduce nonpoint sources of pollution and restore Florida’s impaired water bodies, those that do not meet water quality standards. Nonpoint source pollution refers to diffuse sources of pollution that do not originate from discernible, confined, and discrete conveyances, such as pipes and ditches, and that are caused by rainfall moving over and through the ground.

• Funding Source: Federal, administered by the state.
• Eligible Applicants: State agencies, local governments, colleges, universities, nonprofit organizations, public utilities, and state water management districts.
• Eligible Projects: Projects that treat nonpoint source pollution at its source.
  o Examples include: Swales and bio-swales, planting for bank stabilization and littoral planting, pervious asphalt, pervious pavers, etc., green roofs, low-impact design projects, best management practices (BMPs) that treat stormwater runoff before it enters a major conveyance system, erosion control practices such as road bed stabilization with rocks and plants, projects educate the public on prevention and reduction of nonpoint source pollution, agricultural demonstration projects, septic inventory projects, monitoring activities to evaluate BMP effectiveness for projects implemented as part of a Basin Manage-
ment Action Plan or EPA approved Watershed Plan, monitoring activities for projects funded by the 319(h) grant.

- Match Requirements: Projects should include a minimum 40 percent nonfederal match (that is, Section 319 funding may not exceed 60 percent of the total eligible project cost).
- Maximum Amount: Varies.
- Application Deadline: Typically in spring.
- Program Contact: Kathryn Brackett, email: Kathryn.Brackett@dep.state.fl.us.
- Website: http://www.dep.state.fl.us/water/nonpoint/319h.htm.

**TMDL Water Quality Restoration Grants**

This program provides funding for projects intended to implement best management practices, such as regional stormwater treatment facilities, designed to reduce pollutant loads to impaired waters from urban stormwater discharges.

- Funding Source – State (Florida Department of Environmental Protection).
- Eligible Applicants: Local governments and water management districts.
- Eligible Projects:
  - Projects that reduce stormwater pollutant loadings from urban areas that discharge to waterbodies on the state’s verified list of impaired waters.
  - Projects at least at the 60-percent design phase.
  - Projects permitted (or the permit has been scheduled for approval at the next meeting of the water management district governing board).
  - Projects that include storm event monitoring to determine actual load reduction.
  - Projects in which construction will be completed within three years of appropriation of the funds by the legislature, to ensure funds remain available.
  - Construction of best management practices, monitoring to determine pollutant load reductions, or public education activities specifically associated with the project, which may only occur after the date of contract. Funds spent in advance of contract may be used for match, such as design, land acquisition, and other costs incurred by the applicant.
- Match Requirements: The applicant must provide a minimum of 50 percent of the total project cost, which is made up of at least 25 percent from the local government.
- Maximum Amount: Project Based.
- Application Deadline: Rolling, with projects being ranked in March, July, and November.
- Website: http://www.dep.state.fl.us/water/watersheds/tmdl_grant.htm.

Drinking Water State Revolving Fund
The Drinking Water State Revolving Fund Program provides low-interest loans and grants for the design and construction of public water facilities.

• Funding Source: Clean Water State Revolving Fund Program.
• Eligible Applicants:
  o Cities, counties, authorities, special districts and other privately owned, investor-owned, or cooperatively held public water systems that are legally responsible for public water services are eligible for loans.
  o Only project sponsors owning community water systems or nonprofit water systems are eligible to receive financial assistance.
  o A project sponsored by a for-profit private owner or investor-owner of a community water system that regularly serves 1,500 service connections or more within a single certified or franchised area is not eligible unless the project will result in the consolidation of two or more public water systems.
• Eligible Activities: New construction and improvements of public water systems, inclusive of storage, transmission, treatment, disinfection, and distribution facilities.
• Match Requirements: None listed.
• Maximum Amount: Varies.
  o Funding in any one year is limited to the lesser of $750,000 or 25 percent of the funds available.
  o Projects for which the total cost is less than $75,000 are not eligible.
• Application Deadline: Rolling.
• Website: http://www.dep.state.fl.us/water/wff/dwsrf/index.htm.

Clean Water State Revolving Fund (CWSRF)
The CWSRF program provides low-interest loans for planning, designing, and constructing water pollution control facilities.

• Funding Source: CWSRF Program.
• Eligible Applicants:
  o Cities, counties, authorities, and special districts responsible for sewage services, stormwater management, and estuary protection are eligible for loans. The local government agency must generally own, operate, and maintain the facilities to be financed by a loan. Projects eligible for loans include new construction of and improvements to wastewater sewer systems, sewerage pump stations, sewerage
treatment facilities, reclaimed water reuse facilities, stormwater management facilities, and estuary protection facilities.

- Planning loans and design loans are available only to local governments.
- Construction loans, available to all project sponsors regardless of size.

**Eligible Activities:** Planning, design, inflow/infiltration and construction of eligible projects.

- Planning loans provide funding for the preparation of facilities plan and related documents. Design loans provide funds for the preparation of the bid documents and permitting. Planning loans can be rolled over into design loans and design loans can be rolled over into construction loans.
- Inflow/infiltration loans provide funds for projects that correct excessive inflow or infiltration problems.
- Provide moneys for construction after planning and design are complete.

- **Match Requirements:** None listed.
- **Financing Rates:** Varies based on the median household income, the poverty index, and the unemployment index, but average just over 50 percent of the market rate.
- **Maximum Amount:** Varies.
- **Application Deadline:** Rolling.
- **Website:** [http://www.dep.state.fl.us/water/wff/cwsrf/index.htm](http://www.dep.state.fl.us/water/wff/cwsrf/index.htm)

**Job Training and Workforce Development**
The programs summarized in this section are intended to provide qualified applicants with the tools necessary to ensure a qualified and workforce is available to meet the needs of new and expanded businesses.

**Environmental Workforce Development and Job Training Grant**
As part of the US EPA’s Environmental Workforce Development and Job Training, this program is intended to further environmental justice by ensuring that residents living in communities historically affected by economic disinvestment, health disparities, and environmental contamination, including low-income, minority, and tribal communities, have an opportunity to reap the benefits of revitalization and environmental cleanup in these areas. Environmental Workforce Development and Job Training grants train unemployed and under-employed residents of communities impacted by a variety of waste facilities, blighted properties, contaminated sites, and other environmental issues, for environmental jobs that contractors may otherwise fill from outside the affected community.

- **Funding Source:** U.S. EPA.
• Eligible Applicants: General purpose unit of local government, land clearance authority or other quasi-governmental entity that operates under the supervision and control of, or as an agent of, a general purpose unit of local government, government entity created by state legislature, regional council or group of general purpose units of local government, redevelopment agency that is chartered or otherwise sanctioned by a state, state and nonprofit organizations.
• Eligible Activities:
  o Brownfields hazardous waste training.
  o Solid waste management or cleanup training.
  o Superfund site cleanup and innovative and alternative treatment technologies training (i.e., green remediation technologies).
  o Wastewater treatment training.
  o Emergency planning, preparedness, and response training.
  o Enhanced environmental health and safety training.
  o Integrated pest management training for public housing and project-based rental assistance properties.
• Maximum Amount: Varies up to $200,000.
• Match Requirements: There is no cost sharing requirement; however, voluntary cost sharing is a form of leveraging.
• Application Deadline: Varies. January/February.

**Quick Response Training (QRT)**
The QRT program provides grant funding for customized, skills-based training and design, through partial reimbursement, to new or expanding businesses in Florida’s targeted industries.

• Funding Source: State.
• Eligible Applicants: Businesses offering jobs located in a distressed, urban inner city, rural area, enterprise zone or brownfield area.
• Eligibility Requirements:
  o Must be “for profit” and create new, permanent, full-time (35+ hours per week) jobs for Florida workers requiring customized entry-level skills training not available at the local level.
  o Create new, full-time, permanent, high-quality jobs in qualified targeted industries.
  o Require non-degree, specialized skills-based training of 24 months or less, which is not available at the local level.
  o Should create high-quality jobs paying an average annual wage of at least 115 percent of local or state private sector wages, whichever is
lower, unless the business is located in a distressed urban or rural community, enterprise or empowerment zone, or brownfield area.

- Must produce an exportable (beyond regional markets) good or service.

- **Eligible Activities:** Typically, QRT funds covers portion of instructors’/trainers’ salaries, curriculum development, textbooks/manuals, customized, skills-based on-line training, domestic travel for trainers, and other costs.

- **Maximum Amount:** Reimbursement is calculated based on the number of new hires that have received training and the approved amount per trainee.

- **Match Requirements:** None listed.

- **Application Deadline:** Rolling.

- **Website:** [http://careersourceflorida.com/](http://careersourceflorida.com/)

**Incumbent Worker Training Program**

Florida’s Incumbent Worker Training (IWT) Program provides grant funding for continuing education and training of incumbent employees at existing Florida businesses.

- **Funding Source:** Federal, administered by the state.

- **Eligible Applicants:**
  - A “for-profit” company in the State of Florida.
  - In operation for a minimum of one year before the application date (as verified on sunbiz.org).
  - Demonstrate financial viability.
  - Compliant with the non-discrimination and equal opportunity laws and regulations.
  - Have at least one full-time employee.
  - Have not received an award in the previous 2 program years or the current program year.

- **Eligible Activities:**
  - Tuition.
  - Training cost.
  - Instructors’ wages (capped at $35/hour for company employees delivering the training, capped at $200/instructor hour for vendor training).
  - Other costs (limited to copies or slides at $0.03 per copy, training DVDs or tapes).
  - Textbooks/manuals (limited to course content only (no certification or exam preparation materials) capped at $100/textbook or manual).
  - Curriculum development (limited to two hours for every one hour of training).

- **Match Requirements:** Reimbursement up to 75 percent.

- **Maximum Amount:** $30,000 (in 2015).

- **Application Deadline:** Rolling.

- **Website:** [http://careersourceflorida.com/](http://careersourceflorida.com/)
Housing and Community Development
The funding opportunities and incentives summarized in this section are intended to promote
the development of strong local communities and encourage development.

Florida Small Cities Community Development Block Grant Program
The Community Development Block Grant Program is a federal program that provides
funding for housing and community development activities. Congress created the pro-
gram when it passed the Housing and Community Development Act of 1974. This com-
petitive grant program awards funds to units of local government in small urban and
rural areas. Florida receives between 18 and 26 million dollars annually from HUD to
award subgrants to eligible units of local government.

- Funding Source: Federal (state administered).
- Eligible Applicants:
  o Cities with fewer than 50,000 residents that have not accepted special
    entitlement status and have not opted to join an entitlement program.
  o Counties with fewer than 200,000 residents.
  o Cities with more than 50,000 residents that have opted out of the ur-
    ban entitlement program.
- Program Categories:
  o Commercial revitalization.
  o Economic development.
  o Housing rehabilitation.
  o Neighborhood revitalization.
- Eligible Projects:
  o Water and sewer improvements.
  o Rehabilitation of substandard housing.
  o Street and sidewalk improvements.
  o Economic development activities that create jobs for low- and moder-
    ate-income people.
  o Downtown revitalization, including facade improvements, streetscap-
    ing, and underground utilities.
  o Park facilities and community centers.
  o Drainage and stormwater improvements.

*Funds can also provide administrative support for local governments that may
not have the staffing resources necessary to administer their projects.

- Eligibility Requirements: An activity must meet at least one of the following
  objectives:
  o Benefit to low- and moderate-income persons – at least 51 percent of
    the beneficiaries must be low- and moderate-income persons (total
    household income at or below 80 percent of the area’s median in-
    come).
o Elimination of slum and blight – eliminate conditions of slum or blight as defined by state law and identified by the unit of local government on a spot or area basis.

o Address an urgent need – the activity must alleviate a condition that poses a serious and immediate threat to those living in the area. The condition must have occurred within 18 months of application. The unit of local government must demonstrate that it is unable to finance the activity on its own and that other funding is not available.

- Maximum Amount: The maximum subgrant funding request for economic development subgrants is $1,500,000, and the cost per job created must be less than $35,000.

- Application Deadline: Various. The Department publishes a Notice of Funding Availability (NOFA) in the Florida Administrative Register. The notice is published at least 30 days before the opening of the application cycle and is posted to the Department’s website: www.floridajobs.org.

*Applications for economic development grants may be submitted at any time.

- Contact: Roger Doherty, email: Roger.Doherty@deo.myflorida.com.
- Website: http://www.floridajobs.org/.
- Regulatory Reference: Florida Administrative Code Chapter 73C-23.

**Florida Housing Predevelopment Loan Program**

Through individualized technical assistance and flexible below-market interest financing, the Predevelopment Loan Program (PLP) helps nonprofit and community based organizations, local governments, and public housing authorities plan, finance, and develop affordable housing.

- Funding Source: Federal (state administered).
- Eligible Applicants:
  - Any unit of government.
  - A public housing authority.
  - A community-based or nonprofit organization.
  - A for-profit entity wholly owned by one or more qualified nonprofit organizations.
  - A limited liability company or limited partnership if its managing member or general partner is a community-based or nonprofit organization that holds at least 51 percent of the ownership interest in the development held by the managing member or general partner entity.

- Eligible Activities: loans may be applied toward costs such as rezoning, soil tests, engineering fees, title searches, appraisals, feasibility analysis, legal fees, audit fees, earnest money deposit, impact fees, insurance fees, com-
mitment fees, administrative costs, marketing expenses and acquisition expenses.

*These activities must be part of a nonprofit or governmental organization’s efforts to develop housing for low income households.

- Current Interest Rate: Non-amortizing 1 percent to 3 percent interest rate, with principal and interest deferred until maturity.
- Match Requirements: None listed.
- Maximum Amount:
  - $500,000 for non-site acquisition.
  - $500,000 for site acquisition (including good faith deposits applied to the sales price).
  - The total PLP Loan amount shall not exceed $750,000.
- Application Deadline: Applications are accepted on an ongoing basis.
- Website: http://apps.floridahousing.org/.

Useful Links and Resources

More Information about Incentives

http://www.epa.gov/region4/rcra/bflr/brownfields.html

U.S. EPA Region 4 Information
http://www.epa.gov/region4/rcra/bflr/brownfields.html

Small Business

EDA

List of Local Zone Contact Information for Florida

POWER Initiative
POWER+ Plan

Grants.Gov
http://www.grants.gov/web/grants/search-grants.html

EDA Florida


Florida “Of-Interest” Programs

Loan Guarantee Program
http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0376/Sections/0376.82.html

http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0376/Sections/0376.86.html


Florida Greenways and Trail Acquisition Program
http://www.dep.state.fl.us/gwt/acq/

Brownfield Information:
http://www.dep.state.fl.us/waste/quick_topics/publications/wc/brownfields/Incentives/BrownfieldProgram.pdf

http://www.stpete.org/economic_development_dept/redevelopment_initiatives/docs/Brownfields/The_Florida_Brownfields_Program.pdf

http://www.dep.state.fl.us/waste/categories/vctc/default.htm

http://www.dep.state.fl.us/waste/categories/brownfields/

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1 – County must apply on behalf of City
2 – Public entity must own system
3 – Ownership not applicable, City would apply on behalf of new site occupant
4 – Only for low-income housing non-profit entity
Section 6
Development Options
DEVELOPMENT OPTIONS

This section evaluates mixed-use, commercial, industrial, residential, and parks/recreation development options, and the environmental and geotechnical costs associated with each option.

Conceptual Definitions
We offer the following conceptual definitions of these five development options:

- **Mixed-Use**: a development that includes two or more of the following elements: commercial, industrial, residential, and parks/recreation. Because a mixed-use development could have many combinations, for evaluation purposes we are limiting the mixed-use development to a combination of commercial and residential uses – a mall (shopping, entertainment) with an adjoining condominium or apartment tower, surrounded by parking and landscaping.
- **Commercial**: a mall (shopping, entertainment) or an office complex, surrounded by parking and landscaping.
- **Industrial**: an industrial park surrounded by parking and landscaping.
- **Residential**: condominium and apartment towers and amenities (e.g., community center, pool, playground, walkways, etc.), surrounded by parking and landscaping.
- **Parks/Recreation**: playing fields (soccer, baseball, etc.), playgrounds, and picnic areas, with parking.

Environmental Considerations
Because the cost of cleaning up the site by removing the landfill material and contaminated soil and remediating the groundwater would be prohibitively high, Langan assumes that the city or a future developer will pursue conditional closure, or No Further Action with Controls (NFAC) under Chapter 62-780, Florida Administrative Code (FAC). NFAC allows the property owner to leave contamination on site, under certain conditions:

- The Florida Department of Environmental Protection (FDEP) has to approve a site assessment that documents where the contamination is and what the contaminants are, and that delineates the contamination in soil and groundwater.
- Groundwater monitoring has demonstrated to FDEP’s satisfaction that contaminated groundwater is not migrating off site (i.e., that the contaminated groundwater plume is stable).
- The property owner selects a development option. The nature of the NFAC depends in part on the intended land use. If the land will be used for residential development, then the Direct Exposure-Residential (DER) Soil Cleanup Target Levels (SCTLs, Chapter 62-777, Florida Administrative Code [FAC]) would apply. If the land will be used for commercial or industrial development, then the Direct Exposure-Commercial/Industrial (DEC/I) SCTLs would apply.
- FDEP has approved an engineering control plan (ECP) that will prevent direct exposure to contaminated soil, based on the DER SCTLs or the DEC/I SCTLs or flammable gases (i.e. methane). The ECP can be a cap consisting of an impervious surface (concrete, asphalt, a building) or two feet of clean fill and a methane mitigation system.
- The owner files a Declaration of Restrictive Covenant (DRC), which includes an ECP and an institutional control that prohibits the use of groundwater for any reason.
The findings of the site investigation are summarized herein:

- The city has acknowledged that ash from the former municipal waste incinerator was placed in the former quarry in the North and Middle Parcels. Our test pits and soil borings also found wood, paper, concrete pieces, metal, tree branches, textiles, plastic bags, wires, cables, aluminum cans, glass bottles, tires, cinderblocks, floor tiles, bricks, boulders, steel bars, ropes, plastic sheeting, small appliances, and a car door, consistent with the prior use of the property as a landfill.

- Laboratory analysis identified the following contaminants of concern in soil: TRPH, polynuclear aromatic hydrocarbons (benzo[a]pyrene, benzo[a]anthracene, and benzo[a]pyrene TEQ), PCBs, organochlorine pesticides (dieldrin, alpha-BHC, and beta-BHC), organophosphorous pesticides (mocap and fensulfothion), dioxin TEQ, and metals (arsenic, barium, chromium, and lead). Twelve of the 22 discrete samples and 11 of the 12 composite samples contained contaminants at concentrations above SCTLs. Five of the discrete samples and three of the composite samples contained contaminants at concentrations above DEC/I SCTLs.

- Of the eight wells in the North and the Middle Parcels, laboratory analysis detected PAHs (benz[a]anthracene and benzo[a]pyrene) in one well and arsenic in two wells, at concentrations above Groundwater Cleanup Target Levels (Chapter 62-777, FAC). Groundwater contamination was not identified in the four wells in the southern parcels.

- The EPA regulatory limit for methane in an enclosed space (e.g., a building) is 25% of the lower explosive limit (LEL), or 1.25% by volume. Langan detected methane concentrations above the regulatory limit in nine of the 11 vapor wells in the North Parcel and the Middle Parcel. Concentrations ranged from 4.3% to 46.5% by volume. Langan did not detect methane in the four vapor wells in the southern parcels.

- Our due diligence investigation of the operations in the southern parcels identified several areas of concern, including current and historical underground storage tanks, a lube pit, a former vehicle wash area, septic tanks and drainfields, and vehicle maintenance areas.

In light of these findings, we believe the following environmental costs could be associated with one or more site development options:

- **Additional Assessment:** Under any development option, FDEP will require additional assessment to support NFAC. Such assessment could include an investigation of the areas of concern in the southern parcels, and quarterly groundwater monitoring at the property boundary for one year to confirm that contaminated groundwater is not migrating off site. FDEP might also decide that the 22 discrete soil samples, 22 composite soil samples, and eight groundwater samples we collected during this study are not adequate to characterize the 32.5 acres that comprise the North, Middle, Southeast, and Southwest Parcels.

- **Methane Mitigation:** Methane mitigation systems will be incorporated into the design and construction of buildings on the North and Middle Parcels. Such systems typically comprise a perforated piping to capture the methane, covered by a geosynthetic membrane to prevent the gas from rising into the building. The methane will migrate through the piping and will discharge safely to the atmosphere.

- **Landfill Closure:** Montgomery Watson submitted a closure plan to FDEP in September 1999; FDEP’s on-line database (Oculus) does not contain a response from the agency. If
FDEP requires the city to close the former landfill in accordance with Chapter 62-701, FAC, then the engineering control (cap) on the former landfill might have to meet the construction requirements of Chapter 62-701.600(5), FAC.

- **Contaminated Soil Disposal:** Site development might require grading, or excavating soil for slabs, footers, piles, and utility corridors. Any development option should minimize the amount of contaminated soil that will be transported off site for disposal, because such disposal is costly; however, some off-site disposal of contaminated soil should be expected.

- **Construction Dewatering:** If dewatering is required during construction, then Broward County will require the city to treat the dewatering effluent before the effluent is returned to the ground. The general contractor should be encouraged to use means and methods that do not require construction dewatering. The cost of treating the effluent (in this case, for arsenic and PAHs) depends on the volume of effluent, the flow rate, and the duration of dewatering.

- **Engineering Design and Construction Observation:** Site development will require the design and permitting of methane mitigation systems, the landfill cover, the dewatering treatment system, the stormwater management system, the engineering control, and the SMP; observation of the construction of the methane mitigation systems, the landfill cover, and the engineering control; operation of the dewatering treatment system; observation during construction to document proper management of contaminated soil; and regulatory reporting.

**Geotechnical Considerations**

The key findings of our geotechnical field investigation as well as our preliminary ground improvement and foundation options are summarized below:

**North and Middle Parcels, Total 25.2 Acres**

- Within majority of North and Middle Parcels, landfill was typically encountered about 2 to 4 ft below existing ground surface (typically el +12 to el +20). The landfill material is a heterogeneous mix of debris and waste products intermixed with sand, limerock, and silt. The thickness of the landfill ranged from 29 to 43 ft. The bottom of the landfill ranged from el -16 to el -33.

- A layer of relatively hard cemented sand and limestone with sand (Stratum 5) was encountered at el -30 to el -40 and extended to the maximum exploration depth of 100 ft (el -82). Pile foundations, with proper embedment into this stratum, can provide sufficient support for varied height structures.

- Ground improvement must be applied to the landfill area to minimize, control and reduce the risk of long-term total and differential settlement (ground movement) of the future development. Cost-effective ground improvement, such as Deep Dynamic Compaction (DDC) and preload, is preliminarily evaluated and recommended. For all structures and ground features, both DDC and preload would be required. For parks/recreation or similar green areas, where long-term total and differential settlement is less concern, only preload would be required as a ground improvement technique.

- A stiffened structural shallow foundation system ("waffle slab" including a structural floor slab, plus special procedures for footing subgrade preparation) is preliminarily rec-
ommended as a support option for 1 to 2-story structures. The deep foundation option may still be competitive and more aligned to the risk tolerance of the potential development.

- Deep foundations (augured cast-in-placed pile (ACIP) foundations) are recommended for all 3-story and taller structures. ACIP piles, with varied sizes, capacities, and embedment lengths into the Stratum 5, are provided in Section 3. Structural ground floor slabs are also recommended.

Southeast and Southwest Parcels, Total 7.3 Acres

- No landfill material was observed during the surface investigation. The existing ground surface ranges from about el +12 to el +15.
- In most of the areas outside the former lake areas, the surficial material consists of 4 to 6 ft of granular fill/upper sand, followed by 22 to 25.5 ft of soft limestone (Stratum 3, encountered at el +8 to el +10), over a layer of loose to medium dense sand. Although the limestone is somewhat soft, it can still be used for support of 1 to 3 story buildings on shallow foundation or 4 to 5-story buildings on relatively short and cost effective ACIP foundations.
- In areas within the former lake areas, the surficial material consists of 11.5 to 20 ft of granular fill, followed by 6.5 to 15 ft of soft limestone (Stratum 3, encountered at el +3.5 to el -7 ft) over a layer of sand. In some areas, the soft limestone is too thin for support of 4 to 5-story structures; therefore, deep length piles embedded into Stratum 5 would like be required.
- A layer of relatively hard cemented sand and limestone with sand (Stratum 5) was encountered at el -29 to el -37 and extended to the maximum exploration depth of 100 ft (el -82). Pile foundation with proper embedment into this stratum can provide sufficient support for varied height of structures.
- Heavy surface compaction for ground preparation/improvement is recommended for the entire Parcels C and D development. In addition, a preload program (about 5 ft of soil surcharge) is also required within the former lake areas.
- Shallow foundations with proper foundation subgrade preparation are preliminarily recommended for support of 1 to 3 story structures.
- Relatively short ACIP piles embedded into at least 10 ft within the Stratum 3 limestone could be used for support of 4 to 5-story structures outside the former lake areas. Inside the former lake areas, deeper ACIP piles embedded into the Stratum 5 would be required for support of 4 to 5-story structures.
- Deep foundations (ACIP foundations) are preliminarily evaluated and recommended for all 6-story and taller structures. ACIP piles, with varied sizes, capacities, and embedment lengths into the Stratum 5, are provided in Section 3.
- Slab-on-grade floor system could be used in design, assuming proper site preparation.
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<td>Methane Mitigation²</td>
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<td>Ground Improvement in the North and Middle Parcels⁷</td>
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<td>Preload in Former Lakes of the Southeast and Southwest Parcels⁸</td>
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¹Investigation of soil and groundwater quality in the areas of concern in the southern parcels; additional soil and groundwater investigation at the property boundaries; one year of quarterly groundwater monitoring; removal of underground storage tanks, lube pits, and drainfields; removal of fueling system components – includes subcontractor fees (surveying, well drilling, laboratory analysis, waste disposal) and engineering fees.

²Assumes building footprints cover 5 acres on the North Parcel or the Middle Parcel. Parks/recreation development option assumes restroom facilities only. Buildings on the southern parcels will not need methane mitigation. Based on $2.5 to $5 per square foot.

³Assumes the landfill will require a 20-acre cap. Based on $140,000 per acre.

⁴This cost cannot be estimated without a ft-site disposal of contaminated soil is expensive and should be minimized.

⁵This cost cannot be estimated without information on duration, volume, and flow rate.

⁶Engineering costs could vary considerably, depending on the development option and the actual site design.

⁷Assumes 90% of the North and Middle Parcels subject to ground improvement for all options, except for Parks/Recreation. The ground improvement program consist of DDC ($1.2 to $1.5/square feet) and with 10 ft of Preload ($6 to 7/cubic yard) for construction and removal of preload plus 1/6 of the total preload fill volume to be brought to the site and moved out of the site after completion of the preload (under $6 to 7/cubic yard). For Parks/Recreation option, the cost only includes construction and removal of 5-ft preload.

⁸Assumes 5 ft of preload for the former lake areas in the Southeast and Southwest Parcels. The cost only includes construction and removal of the preload.

⁹Assumes either rigid shallow foundation or deep pile foundation for 1 to 2 story structures, moderate-capacity deeper pile foundation for 3 to 5-story structures, and high-capacity deeper pile foundation for 6-story and taller structures. Use construction cost within areas outside of the former lake areas in the Southeast and Southwest Parcels as the base cost for comparison. Percentage values are gross “ball-park” values.

¹⁰Assumes normal shallow foundation for 1 to 3-story structures, moderate-capacity deeper pile foundation for 4 to 5-story structures, and high-capacity deeper pile foundation for 6-story and taller structures. Use construction cost within areas outside of the former lake areas in the Southeast and Southwest Parcels as the base cost for comparison.