



Parks Revitalization Program

Implementation Plan

H.R. 2424 The Community Parks Revitalization Act (2013)

Fall 2014: Applied Workshop in Earth Systems Management II

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“The nation behaves well if it treats its natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.” — Theodore Roosevelt

> TABLE OF CONTENTS <

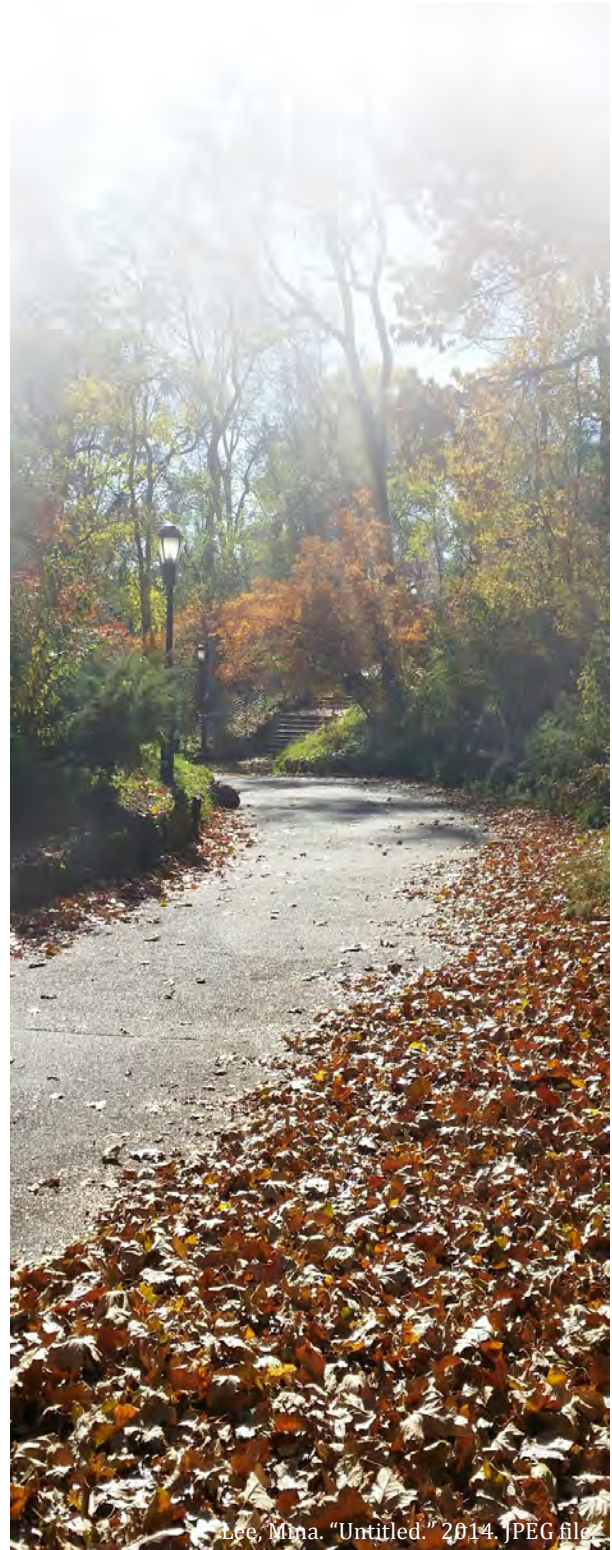
Executive Summary	Pg. 5
Introduction	Pg. 9
Program Precedent	Pg. 12
Program Design and Scoring Criteria	Pg. 13
Implementation Process	Pg. 16
Program Staffing	Pg. 17
Master Calendar	Pg. 21
Program Budgeting	Pg. 29
Performance Management	Pg. 32
Conclusion	Pg. 36
About the Authors	Pg. 37

> EXECUTIVE SUMMARY <

>> *H.R. 2424 The Community Parks Revitalization Act (2013)*

H.R. 2424, The Community Parks Revitalization Act, is an amalgamation of various acts and a very ambitious one at that. It tackles the environmental problems including air pollution, urban heat island effect, and ineffective storm water management, caused by rapid urbanization through the ecosystem services provided by the creation of parks. The act authorizes the Secretary of Housing and Urban Development (HUD) to administer federal grants and loans program for the rehabilitation, construction, innovation, and programming and recovery actions of urban parks to benefit metropolitan communities. The bill also seeks to address economic recession and unemployment through the creation of jobs, stimulation of growth, investment, and tourism. It also manages to tackle adolescent obesity, veteran rehabilitation, and juvenile crime by providing after-service and after-school programs in parks and its programs.

The emergence of the understanding that these problems associated with urbanization must be resolved, commingled with the increased emphasis on environmental awareness, as well as the push for economic recovery through green technology, made infusion of funds possible for H.R. 2424.



>> Environmental Issues

Air Pollution

Approximately 127 million urban residents live in areas that routinely exceed air quality standards. According to a study published in the fall of 2013, total combustion and ozone emissions accounted for over 210,000 premature deaths each year in the U.S.¹ Furthermore, rising asthma rates, particularly for urban, minority youth, cause lost days at work or school and admissions to emergency rooms, at a cost in 2007 of over \$56 billion.²

Vegetation in parks significantly reduces amounts of air pollutants. Leaves remove particulate matter and absorb to break down gases like ozone, sulfur dioxide and nitrous oxide. Estimates from 1994 in New York City indicate that tree cover removed 1,821 metric tons of air pollution; something estimated at a value of \$9.5 million.³ A study released in July 2014 indicates that the contributions of trees to overall air quality improvement helped avoid 850 premature deaths and 670 thousand incidences of respiratory distress throughout the U.S.⁴

¹ Caiazzo, F., Ashok, A., Waltz, I. A., Yim, S. H. L., & Barrett, S. R. H. (2013). Air pollution and early deaths in the united states. part 1 quantifying the impact of major sectors in 2005. *Atmospheric Environment*, 79, 198-208.

² National Center for Environmental Health, Division of Environmental Hazards and Health Effects. (2011). *Asthma in the U.S.*. Retrieved from Centers for Disease Control website: <http://www.cdc.gov/vitalsigns/pdf/2011-05-vitalsigns.pdf>

³ Nowak, D. J. USDA Forest Service, (2002). *The effects of Urban Trees on Air Quality*. Retrieved from website: http://www.nrs.fs.fed.us/units/urban/local-resources/downloads/Tree_Air_Qual.pdf

⁴ United States Department of Agriculture, Forest Service (2013). Forest Service Study Finds Urban Trees Removing Fine Particulate Air Pollution, Saving Lives.

Urban Heat Island Effect

Urban areas are heavily built of materials like concrete that retain heat during the day and then slowly release that heat to the air at night. The urban heat island effect accounts for higher temperatures in the core areas of the central city when compared to the areas surrounding the city. On a hot summer evening, this can account for as much as a 22°F difference in the air temperature, leading to increases in energy consumption and creating a health risk for the elderly or impoverished residents. Moreover, heat tops the list of weather related deaths in urban areas.⁵

The U.S. Forest Service found that New York City's street trees provide an estimated \$27 million a year in energy savings by simply providing shade which can cool peak temperatures of open areas up to 20-45°F. Furthermore, evapotranspiration, a process in which water is lost or evaporated from the leaves and roots of plants and in the surface soils to the atmosphere, dissipates the heat in and around the vegetation resulting in a cooler air encompassing it. Evapotranspiration can help reduce peak summer temperatures by 2-9°F.

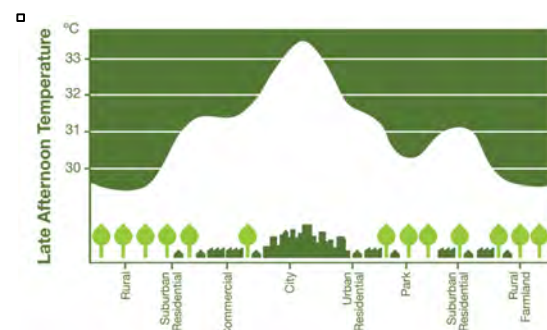


Figure 1. Graph depicting the urban heat island effect.⁶

⁵ EPA (2014). <http://www.epa.gov/heatisland/>

⁶ Source: "Responding to the urban heat island: Optimising the implementation of green infrastructure"

Stormwater Management

A rainstorm that deposits just half an inch of rain onto an urban surface produces 17 million gallons of water per square mile, or roughly enough water to fill three Olympic-sized swimming pools. The urban environment covers surfaces with buildings, asphalt roads and concrete. Because of these impermeable surfaces, an average 55% of rain, or 9.35 million gallons of water, becomes runoff draining into the sewage treatment system or directly feeding into adjacent waterways. Consequently, rain carries contaminants like spilled oil, detergents, heavy metals solvents, pesticides, fertilizer, and bacteria from pet waste, later putting a burden on sewage systems and thus releasing this mixture into the environment.

Given current climate data and the predictions for the future, a continuing rise in the number of heavy precipitation events will exacerbate this problem.

Parks help decrease stormwater runoff in urban environments through the following mechanisms: 1.) interception of water by vegetation so that it never reaches a surface to runoff, 2.) higher infiltration rates into the soil, 3.) higher evaporation rates, and 4.) storage of water by vegetation. Parks and recreational facilities often include design features such as wetlands and catchment ponds to slow down and store water, thus leading to significant savings for communities. The City of Philadelphia, for example, estimates that the total annual value of parks in storm water management based on savings in sewage treatment was just under \$6 million.

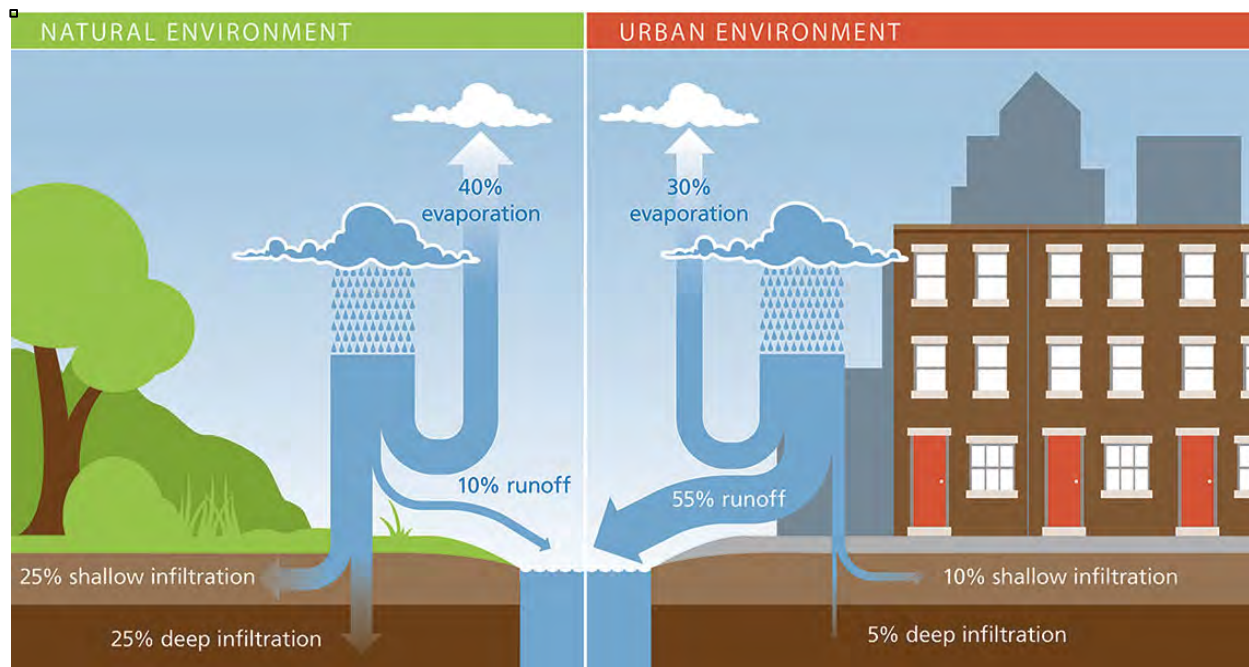


Figure 2. Hydrological cycle for natural vs. urban environments.⁷

⁷ Source: City of Philadelphia

>> *The Scope of This Report*

The scope of this report focuses specifically on the implementation of a specific program design after the approval of the Community Parks Revitalization Act by the Congress. Although the act specifies a 10-year program design, this report centers on defining the program design, staffing, budgeting, and management details that entail the establishment and implementation of the Parks Revitalization Program in its very first year.



Lee, Mina. "Untitled." 2012. JPEG file.

> INTRODUCTION <

>> *Background of H.R. 2424*

On June 18, 2013 New Jersey's 8th congressional district representative, Democrat Albio Sires, sponsored the Community Parks Revitalization Act (H.R. 2424). This act authorizes the HUD to implement a community revitalization program for various parks to establish programs enabling communities to better leverage resources to address health, economic development, and conservation concerns through investments in parks, recreational areas, facilities, programs, and other complementary activities. The bill proposes implementing two economic incentives: First by providing funds for grants for fiscal years 2013 to 2022 and secondly providing \$50 million in loans each year for four years from 2014 to 2018.

Eligibility to receive grants and loans depends in part on the park's location, due to the expressed goals of each regional representation. Local governments located within standard Metropolitan Statistical Areas (MSA), as determined in accordance with the most recent decennial Census, may apply to receive grants. These areas contain a core urban area of 50,000 or more population, consist of one or more counties, and have a high degree of social and economic integration (as measured by commuting to work) with the urban core. The size of the MSA varies and crosses traditional state and municipal boundaries. For example, the MSA that includes New York City comprises an area that extends over the cities of Allentown, Pennsylvania and Stamford, Connecticut and includes 19.9 million people as of 2013.

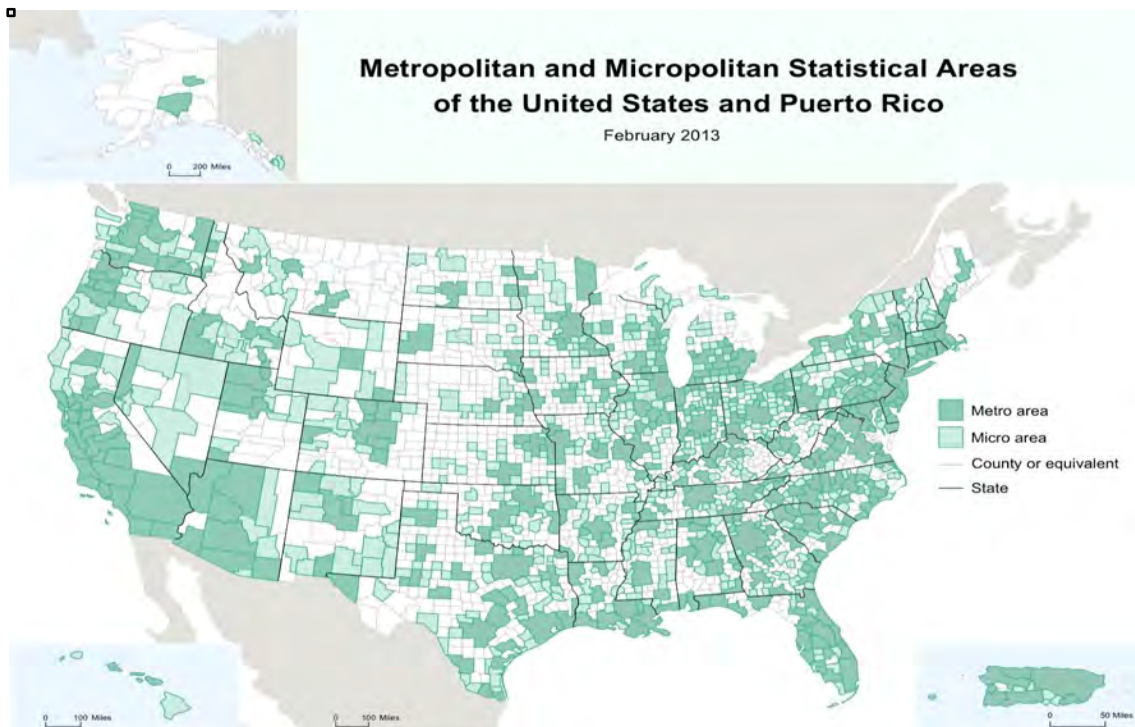


Figure 3. A map showing the Metropolitan Statistical Areas (MSAs) in darker green.

H.R. 2424 Grants

HR 2424 proposes three competitive grant types as follows:

1. **Rehabilitation and construction grants** are distributed for remodeling or creating new parkland areas and facilities. This includes landscape improvements, building necessary infrastructure and support facilities as well as the installation of lights and emergency phones to improve urban park safety.
2. **Innovation and recreation program grants** provide funds for supplies, a workforce and facilities with an emphasis on designing methods to increase access to recreational areas.
3. **Recovery action program grants** are given for designing and implementing strategies for the purpose of overall recreation system recovery.

The grant recipient can modify approved projects if it can effectively demonstrate that unforeseeable issues impacted the implementation of the initial project proposal. Furthermore, each local government must match the amount received from a rehabilitation and construction grant. Grant recipients must match at least 57% of the total amount from the grant.

H.R. 2424 Loans

Section 2 of the bill calls on the HUD to establish the selection criteria for projects with anticipated total costs greater than \$20 million. The criteria must include the following:

- The extent to which the project is regionally significant to the generation of recreational opportunities.
- The extent to which it fosters innovative public-private partnerships.
- The likelihood that assistance would enable the project to proceed.
- The extent to which the project uses new or innovative approaches.
- The extent to which the project helps to maintain or protect the environment.

The bill defines the criteria for selection of a project for the loan portion of the bill to encourage a diversity of project types and geographical locations. The HUD sets the criteria for awarding grants based on the following criteria:

- The project serves a community with a high population density, deficiencies in the condition of existing recreational areas and facilities, improves access to neighborhood recreational facilities for underserved populations, located in an area with higher than average unemployed people and promotes physical activity.
- The project encourages community participation in determining rehabilitation and development

needs, and complements efforts at the local level in development and revitalization.

- The project uses environmentally beneficial components and provides environmental benefits to urban areas and sustainability benchmarks, such as Leadership in Energy and Environmental Design (LEED) Certification.
- The project improves access to transportation and contains safe routes, bikeways and sidewalks to connect to the local neighborhoods.

>> Supporters and Opponents of H.R. 2424

Currently, the bill has 37 democratic and 1 republican cosponsors, mainly from metropolitan areas across the country.⁸ Urban areas tend to be largely democratic; thus, Democrats strongly endorse this bill. The American Society of Landscape Architects and the Sierra Club also strongly support the enactment of this bill due to their ties with the conservation of natural habitats.⁹ The child actor from Modern Family, Nolan Gould, endorses and campaigns for this legislation as well.¹⁰

However, as with anything, some opposition is to be expected. The general public who believe that social issues, such as health care, human rights, and education, should be addressed through other programs rather than through the creation of parks, stand opposed to this bill. Republicans, who object to government tax spending, also stand against this bill. Real estate developers, who prefer to value short term goals of constructing more properties for profit in vacant urban areas, over the long term enhancement of the city, also oppose this bill.

⁸ GovTrack.us. (2013, June 18). H.R. 2424: Community Parks Revitalization Act. Retrieved September 17, 2014, from <https://www.govtrack.us/congress/bills/113/hr2424>

⁹ American Society of Landscape Architects. (n.d.). Community Parks Revitalization Act. Retrieved September 17, 2014, from http://www.asla.org/uploadedFiles/CMS/Advocacy/Federal_Government_Affairs/Advocacy_Day/Advocacy_Day_2013/CPRA_Summary_2013.pdf

¹⁰ Sierra Club. (n.d.). Modern Family star Nolan Gould Encourages Supporters to Take Action. Retrieved September 17, 2014, from <https://secure.sierraclub.org/site/Advocacy?cmd=display&page=UserAction&id=11373>

> PROGRAM PRECEDENT <

In order to properly address the spirit of H.R. 2424, the growth of parks and recreational programs can be examined from the turn of nineteenth century, when there was a wide prevalence of acceptance in city government's involvement in recreational programs. The number of parks surged after the conclusion of the Second World War in 1945, when thousands of servicemen and women returned back to the U.S. and found an unexpected value in recreational life. However, through the twentieth century, and mostly in response to the tax revolts in the 1970s and 80s, public parks and recreation agencies faced increasing limitations on its budgets.¹¹ Furthermore, the recent economic changes locally and nationally have provided new challenges to the management of public parks. It has been reported that cities were burdened with \$5.8 billion in deferred repairs and improvements in parks in 2011.¹² Thus, combined with the trend of increased urbanization that highly realized the escalated necessity of urban parks, H.R. 2424 was proposed to combat these burdens while addressing a variety of environmental, economic and social problems.

>> Urban Parks and Recreation Recovery Program (UPARR) and Similar Legislations

H.R. 2424 was largely modeled after the Urban Parks and Recreation Recovery program, also known as UPARR. Established in 1978, UPARR provided \$725 million in assistance to more than 1,500 sites and facilities in over 300 localities to rehabilitate existing urban parks and critically needed recreation facilities. However, UPARR has not been funded since 2002.¹³ Thus, H.R. 2424 works to replace UPARR.

Similar legislations to H.R. 2424 include: H.R. 709, The Urban Revitalization and Livable Communities Act of 2011 and H.R. 3978, New Opportunities for Bicycle and Pedestrian Infrastructure Financing Act of 2014.¹⁴ However, H.R. 709 did not pass Congress and H.R. 3978 has a prognosis of 11% of it ever being enacted.¹⁵ The Land and Water Conservation Fund (LWCF) is also a similar state assistance program that provides matching grants to protect parks and recreation areas.¹⁶

¹¹ NRPA Congress. (2010, March 1). Economic Issues Affecting Parks & Recreation. Retrieved September 17, 2014, from <http://www.verderiverinstitute.org/FC-WhitePaper-Final.pdf>

¹² The Trust for Public Land. (2011, December 8). Annual City Parks Data Released. Retrieved September 17, 2014, from <https://www.tpl.org/media-room/annual-city-parks-data-released-trust-public-land>

¹³ United States. National Park Service. (2006, July 3). Urban Park Recreation Recovery. Retrieved September 17, 2014, from <http://www.nps.gov/uprr/>

¹⁴ The Urban Revitalization and Livable Communities Act, H.R. 709, 112th Cong. (2011).

¹⁵ New Opportunities for Bicycle and Pedestrian Infrastructure Financing Act, H.R. 3978, 113th Cong. (2014).

¹⁶ Land & Water Conservation Fund Coalition. (2014). About Land and Water Conservation Fund. Retrieved September 17, 2014, from <http://lwcfc coalition.org/about-lwcf.html>

> PROGRAM DESIGN AND SCORING CRITERIA <

>> *Program Design*

The program design for the first year favors projects that have already begun and would be able to use additional funding to either accelerate the process or to add additional elements to the design that address the established criteria. It would require small adjustments in an established local plan therefore yielding a faster impact. Conversely, this option might be difficult to find a match between our desired program goals and the projects. Baseline data for the longitudinal study prior to implementation might not be available. Contracting and staffing could also prove to be problematic due to the seasonality of both construction and educational programming. This project would use the funding from the Rehabilitation and Construction Grant, which constitutes the bulk of the money appropriate for the project.

Defining Parks Being Addressed

Although the average size of a park is around 70 acres and the size of the parks was seriously considered in the development of the program design, it was concluded that the size of the park should only be considered based on the environmental impacts the project being proposed will have. Thus, the size of the parks being addressed will vary in terms of location, environmental impact, and the proposed projects.

Defining the Program Goals and Targeted Impacts

The primary goal of the program is to mitigate the negative environmental consequences of urbanization through green technology. The three main environmental objectives are as follows:

- Improve stormwater management
- Alleviate air pollution
- Decrease urban temperature

Using specific criteria, our program utilizes a point-based system to score grant proposals. The final score is weighted by a percentage that demonstrates the importance and relevance to the overall program goal. Within the criteria are more specific subcriteria, which are added up by points 0-4, and the overall score is calculated. Environmental impact criteria weigh 40% of the overall score. This allows projects to demonstrate more results and impact in our environmental goals. The other criteria include: community involvement, demographics/ population, support (funding) from State and/ or private, condition of existing facilities, monitoring & evaluation plan, and project feasibility (*see Table 1*).

While targets for each year will vary based on relevant community issues, as requested, Table 1 favors established projects during the first year. As we move forward, the criteria for grant selection will be adjusted based on periodic program goals as determined by the Secretary of HUD. It will also consider audit results and feedback throughout the program.

>> *Program Criteria*

In order to successfully select the applicants and their project proposals, the Parks Revitalization Office (PRO) will devise a point-based scoring system (*see Table 1*). Sub criteria are rated on a scale from 0 to 4; with 0 demonstrating minimal to no compliance to the subcriteria, and 4 demonstrating the highest compliance to the subcriteria. These sub criteria points are added up for each main criteria category. The total points for each criterion are then calculated into the percentage weight for an overall total score. As “Environmental Impact” is a crucial goal for this program, it has the largest percentage weight of 40%. Project proposals with the highest overall totals will be given grant approval.

The final score will be weighted by a percentage that demonstrates the importance and relevance to the overall program goal, which is to mitigate the negative environmental effects of urbanization by means of green technology and sustainable measures.

All applicants who submit their grant applications to the HUD will first be judged based on the aforementioned criteria by the Office of Departmental Grants Management and Oversight (ODGMO). The ODGMO requires additional staff to perform the tasks involving the grant application paperwork and administration. These new staff positions will create a new office titled the Parks Revitalization Office (PRO), and will be further elaborated in the section titled, *Program Staffing*.

Table 1. Point-Based System for Grant Application

Criteria	Subcriteria	Percentage
1. Environmental Impact	1) Percent decrease in stormwater runoff 2) Percent increase in vegetation coverage 3) Incorporating green technology (yes/no)	40%
2. Community Involvement	1) Community participation/involvement in design of project proposal (yes/no) 2) Participatory monitoring included in project proposal (yes/no)	10%
3. Demographics/ Population	1) Number of people benefiting from project 2) Improvement of recreation service minority populations and low-moderate income residents, special populations in distressed neighborhoods	10%
4. Support (Funding) • State • Private	1) Above required matching funds, the project has other sources of income (%)	10%
5. Condition of Existing Facilities (if any)	1) Perceived need for infrastructure improvement 2) Infrastructure improvement will positively affect other recreational facilities and services	10%
6. Monitoring & Evaluating Plan	1) Proposal incorporates viable budget and timeline for monitoring and evaluating the overall project	10%
7. Project Feasibility	1) Timeline is achievable 1) Project proposal incorporates adequate staffing 2) Project considers budget for infrastructure maintenance outside of grant funds	10%

> IMPLEMENTATION PROCESS <

>> *Actors Involved in the Implementation of H.R. 2424*

The actors who would be involved in the implementation of H.R. 2424 would include: the HUD, local governments applying for the grant, as well as other groups and people

associated with the actual rehabilitation and development of parks. The implementation authority is pretty clear at the federal level; however, due to differences in administrative structures in different states and cities, the implementation authorities will differ on a case-by-case basis.

>> *Implementation Process*

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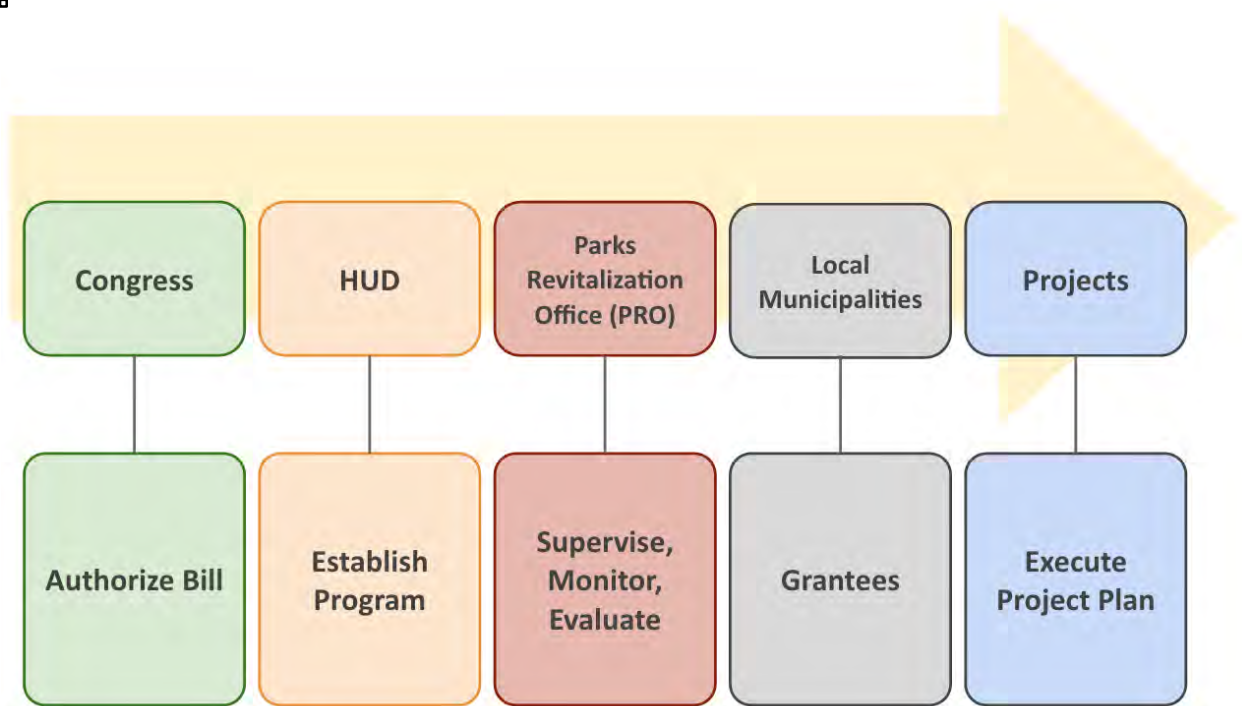


Figure 4. The process of how the program is implemented from Congress down to the local municipalities and its projects.

> PROGRAM STAFFING <

>> *Overview of New Staff*

Congress is the source of the \$400 million for the program's overall budget over 10 years. This \$400 million goes through the HUD to establish H.R. 2424. The ODGMO currently has four staff members who must carefully carry out this program; for this reason, additional staffs are required to perform necessary tasks to assess the grant applications.

Seven staff positions will be added to the ODGMO to administer the program: one executive position, three managerial positions, and four analysts who work under the managerial positions. These seven staff make up the new PRO. The following is a brief description of how the number of additional staff that would be required in order to successfully implement the program was determined.

The amount of additional hires necessary to successfully carry out the Act was calculated by examining the average amount of hours (226 hours) it took to process a grant under the UPARR. This number was multiplied by the average amount of grants (40) that is anticipated and decimated under H.R. 2424. This calculation determines the total amount of hours (9,040 hours) that will be needed per year to process the total amount of grants that will be given out annually. This number is then divided by the average amount of days worked by government employees (260 days). This establishes the amount of hours per day that will be required for grant processing (34.7 hour/day). This number is then divided by the average amount of hours a federal employee works per day (8 hours).

This calculation presents the amount of employees it will take in order to successfully process all grants (4).

The following is a mathematical illustration of the calculation:

- $226 \text{ (hours per grant)} \times 40 \text{ (average number of grants under the UPARR)} = \mathbf{9,040 \text{ (total hours spent on grants annually)}}$
- $9,040 / 260 \text{ (average amount of days worked per year)} = \mathbf{34 \text{ (hours per day)}}$
- $34 / 8 \text{ (average hours worked per day)} = \mathbf{4 \text{ (amount of people required to process all grants)}}$

In addition to the 4 employees accounted for in the above equation, 4 managerial positions would need to be created to successfully administer and carry out the grant program. We determined that these hires were necessary after examining the staffing hierarchy of similar programs including the UPARR. The following organizational structure in Figure 1 demonstrates the staff positions and their appropriate tasks and salaries based off General Schedule classification standards.¹⁷ These positions will ensure proper implementation of the program on the administrative level.

¹⁷ Office of Personnel Management (2014). *Pay & Leave: Pay Systems*. Retrieved from <http://www.opm.gov/policy-data-oversight/pay-leave/pay-systems/general-schedule/>.

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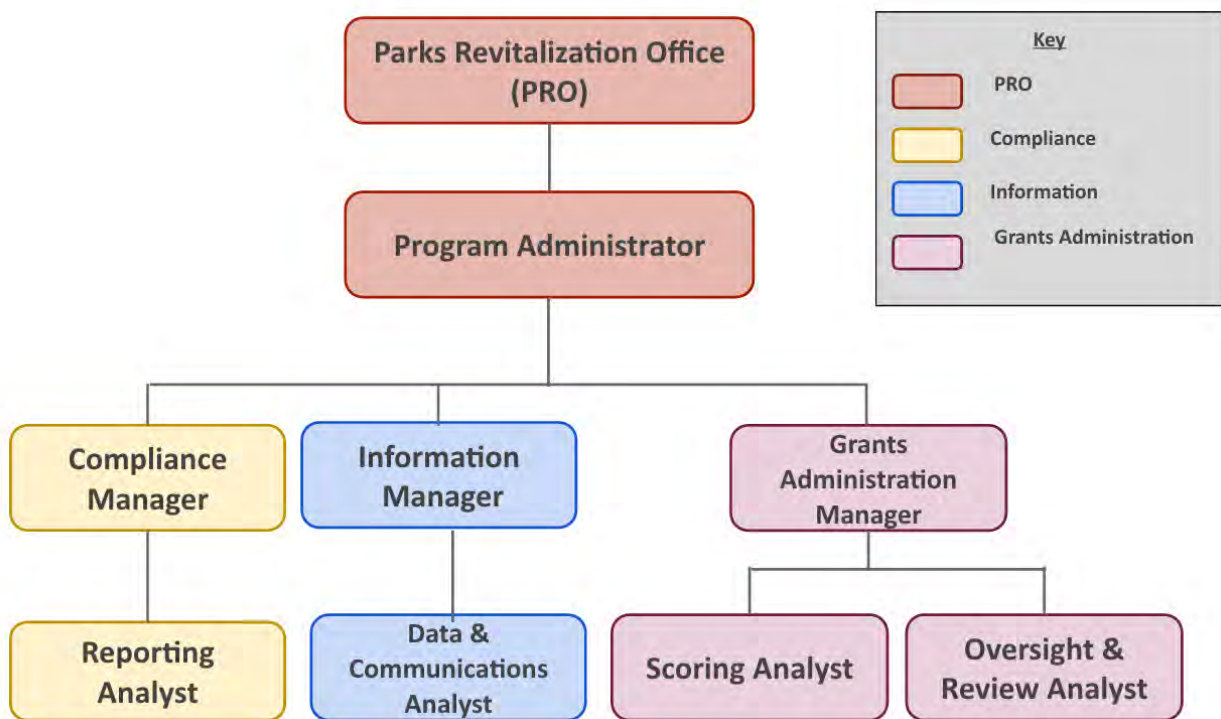


Figure 5. Additional Staff in the creation of the PRO.

>> *New Staff Responsibilities and Salaries*

Executive (1):

- Program Administrator (GS15 - \$125,000/year)
 - Program development
 - Provide oversight
 - Track program expenditures
 - Manage budget and revenue
 - Directly report to the Secretary of HUD and other agencies

Managers (3):

- Director of Compliance (GS12 - \$80,000/year)
 - Secure contractors for evaluating the program impacts
 - Evaluate project progress
 - Collect and manage data about the projects
 - Compile annual required project reports
 - Write the 5 year interim and final report to Congress
- Director of Communications (GS12 - \$80,000/year)
 - Communicate with ongoing projects to answer questions about implementation

- Develop publicity about the grant to include:
 - Website
 - Informational documents about the program
- Director of Grant Administration (GS12 - \$80,000/year)
 - Oversee grant proposal scoring
 - Secure contractors to evaluate the technical aspects of the proposals
 - Review of scoring process.
 - Work with the grant proposal originators to clarify issues

Analysts (4):

- 4 Analysts (GS10 - \$65,000/year)
 - Flexible responsibilities as needed with each taking leadership in one of 4 areas:
 1. Collect data and managing information for reporting
 2. Update program information
 3. Manage logistics of criteria scoring system
 4. Assist with program review and oversight

Table 2. Payroll for the additional staff that will create the PRO. The payroll takes into account anticipated staff benefits, which are 30 percent of the respective position salaries. The total amount of money for all of these staff is \$825,500 of the program budget for the first year.

Staff Position	Salary	Benefits	Total
Executive (Program Administrator)	\$125,000	\$37,500	\$162,500
Managers	\$240,000	\$72,000	\$312,000
Analysts	\$270,000	\$81,000	\$351,000
Overall Total	\$635,000	\$190,500	\$825,500

>> *Expenditure Items*

H.R. 2424 requires Other-Than-Personnel Services (OTPS) in order to attain the program goals. OTPS includes technical equipment, such as computers and printers

for the administrative-related tasks necessary to implement the program. OTPS also includes travel reimbursements for staff who are required to visit project sites and evaluate their performance levels.

Table 3. Total Expenditure List Over 10 Years.

Expenditures	Years 1 & 2	Years 3 & 4	Years 5 & 6	Years 7 & 8	Years 9 & 10	Total
Payroll	\$1,270,900	\$1,295,400	\$1,321,300	\$1,347,720	\$1,374,680	\$6,610,000
Benefits	\$382,300	\$388,600	\$396,390	\$404,310	\$413,400	\$1,985,000
Consultants/ Contracts	\$200,000	\$250,000	\$280,000	\$200,000	\$100,000	\$1,030,000
Travel	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$225,000
Non-Personnel	\$28,000	\$5,500	\$5,500	\$5,500	\$5,500	\$50,000
Marketing	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
Overall	\$1,946,200	\$2,004,500	\$2,068,190	\$2,022,530	\$1,958,580	\$10,000,000

The budgeting will be further illustrated in the section, *Program Budgeting*.

> MASTER CALENDAR <

The following master calendar is based on the HUD's program design, organizational and staffing plan, and program budget. It delineates the main tasks and subtasks involved in establishing Rehabilitation and Construction Grants, Innovation and Recreation Grants, and Recovery Action Grants for local governments within MSAs to invest in parks, recreational facilities, and programs. It organizes the responsibilities of different departments and highlights the proposed one-year timetable for the program by setting designated timeframes and deadlines for each task.

Following passage of this bill by Congress and authorization of the budget to HUD, there are 6 major tasks that must be completed in the first year to ensure the proper management of H.R.2424 and the associated grant process.

These tasks include:

1. Establishment of the PRO and hiring of additional staff
2. Development of grant application criteria
3. Creation and implementation of a marketing plan for the local municipalities

4. Beginning of grant applications
5. Reviewing of grants and awarding of grants
6. Preparation of grant monitoring and second grant phase

This is an ambitious but feasible timeline for the first year, beginning at the national government's Fiscal Year in October 2015 and ending in September 2016. From October to December 2015, HUD will need to create a new division within ODGMO, the PRO, to manage the bill and grant process. Simultaneously, the PRO will begin developing the full grant application during the second week of November through January 2016, which will then be advertised to municipalities across the country in February 2016. The grant application will then be open for 60 days (March and April 2016), and PRO will review grants on a rolling basis, followed by award of selected grants from March until June 2016. Once this process is completed, PRO will begin preparing for the second grant phase, which will favor new projects for all 3 grant streams, while also preparing for M&E for implemented grants in the second year from June until September 2016.

H.R. 2424 Implementation	2015			2016								
	O	N	D	J	F	M	A	M	J	J	A	S
1. PRO Established & Staffed												
2. Grant Application Development												
3. Marketing of Grant												
4. Grant Open												
5. Grant Review & Award												
6. Grant Monitoring Preparation & Second Grant Phase												

Calendar 1. Master calendar for Parks Revitalization Program.

>> Activity 1: Establishment of the Parks Revitalization Office

The first major task to implement HR 2424 is to create the new office within the ODGMO, the PRO (*see Calendar 2*). In order to create this office, it is essential that the Program Administrator is hired first. Advertisement of this position and interviewing, followed by the final hiring of the Program Administrator will be conducted throughout October 2015. This process will be managed internally by ODGMO, and we anticipate this process will be relatively quick, since there will be preference for an internal candidate. At the same time, ODGMO will secure an office location for the PRO. Once both of these

activities are completed, the Administrator and ODGMO will hire the Compliance Manager, Communications Manager, and Grant Administration Manager. At this point the management structure of PRO will be complete. Then managers, in coordination with the Administrator, will begin the hiring process for their respective Analysts in the second half of November. While the hiring process is ongoing, the new managers and administrator of PRO will participate in a training and orientation program the first two weeks of December to familiarize themselves with the new office and purpose. All of these logistical activities are necessary so that the office is staffed and organized to begin the grant process.

October				November				December			
Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
1.1 Hire Program Administrator											
		1.2 Secure Office Location									
				1.3 Hire Compliance Manager		1.6 BEGIN: Hire Reporting Analyst					
				1.4 Hire Communications Manager		1.7 BEGIN: Hire Data & Communications Analyst					
				1.5 Hire Grant Administration Manager		1.8 BEGIN: Hire Scoring Analyst					
						1.9 BEGIN: Hire Oversight & Review Analyst					
								1. 10 Training and Orientation			

Calendar 2. Timeline for the establishment of the Parks Revitalization Office.

>> Activity 2: Development of the Grant Application Criteria

Before getting into the second major task, by the first week of December, the departmental managers will finally hire the 4 Analysts of PRO (see calendar 3). While these analysts are being vetted and hired, the second major task will begin to develop the grant application for H.R.2424. During the last two weeks of November and first week of December, the Program Administrator and the three managers will work collaboratively to first formalize the objectives and goals of H.R. 2424 based on the text of the bill passed by Congress. This provides a key foundation for

the development of the scoring criteria with which to evaluate the grant applications that PRO will receive. These scoring criteria aids PRO in determining the established project grant applications that will be awarded, which will favor grants that will have a large impact in the municipality they are based in. The 4th week of December will be free for the holidays and the New Year. Then, during the first three weeks of January, the Program Administrator and managers will determine the grant reporting requirements for grant awardees, such as when reports will be due. Finally, the HUD will approve the objectives, goals, and scoring criteria at the end of January.

November		December				January (2016)			
Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
2.1 Identify and formalize objectives and goals						2.3 Determine reporting requirements for grants			
		2.2 Develop scoring criteria to evaluate grants							2.4 HUD Approval
1.6 END: Hire Reporting Analyst									
1.7 END: Hire Data & Communications Analyst									
1.8 END: Hire Scoring Analyst									
1.9 END: Hire Oversight & Review Analyst									

Calendar 3. Timeline for the development of the grant application criteria.

>> Activity 3: Grant Marketing

Once the structure of the grant is created, the following major task is to market the grant to municipalities across the country (*see calendar 4*). This dissemination will occur

throughout February, and will be managed by the Communications department. This allows municipalities to be able to organize themselves if they are interested in applying for additional funding for an established project.

February			
Week 1	Week 2	Week 3	Week 4
3.1 Grant Application details posted and disseminated			

Calendar 4. Timeline for grant marketing.

>> Activity 4: Grant Application Open

Once municipalities are aware of the grant streams available under H.R.2424, the grant application process will be posted and available for admissions in the first week of March (*see calendar 5*). This process will be managed by the Communications office. The grant application will then be open for 60 days for municipalities to apply (March

through April), which gives them additional time to prepare the application and identify and organize public-private partnerships, or collaborate with community groups, if necessary. PRO anticipates that 60 days is an adequate amount of time to allow grant applications because municipalities are applying for projects that have already been started.

March				April			
Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4
4.1 Grant application package posted on HUD website							
4.2 Grant applications are received							

Calendar 5. Timeline for the beginning of the grant application.

>> Activity 5: Grant Applications Awarded

After the grant process is opened, the 5th major task to implement HR 2424 is the review and awarding of selected grants (*see calendar 6*). Grants will be reviewed by the Grants Administration department on a rolling basis during the 60 days that the grant process is open. Depending on the number and nature of the grant applications received, a certain number will be selected and

approved by the Program Administrator. Following this, at the beginning of May, the Grants Administration group will notify grantees which grants will be awarded. This will be followed by signing of contracts and disbursement of funding following the signature of contracts. Once contracts have been signed, the municipalities must implement grants within 40 days of the award date, which coincides with city budgets that are determined in July.

March				April				May				June			
Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4
5.1 Grant applications evaluated according to criteria and selected															
								5.2 Grants awarded, contracts signed, first disbursement of funding							
										5.3 Grants must be implemented					

Calendar 6. Timeline for the awarding of the grant applications.

>> Activity 6: Preparation for Grant Monitoring and Second Grant Phase

Thinking ahead to the second year, the final major task is preparing for grant monitoring and for the second grant phase (*see calendar 7*). In June, the Compliance department will begin preparations for monitoring and evaluation of the grants awarded in May to ensure compliance with agreed upon

objectives from the grant proposal. Though the actual monitoring and evaluation (M&E) won't occur until the second year, preparations must be made now. In parallel to these efforts, the Grants Administration office will begin developing the criteria for the second phase of grant applications that will also occur in the second year. For this second phase, the grants will favor new projects for all three of the grant streams.

June				July				August				September			
Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4
6.1 BEGIN: Preparations for M&E of projects next year															
6.2 BEGIN: Developing criteria for second phase of grant applications															

Calendar 7. Timeline for the preparation of grant monitoring and second grant phase.

> PROGRAM BUDGETING <

>> *Budget Justification and Logic*

The overall budget from Congress has been set as \$400 million. This number is based off of the Urban Park & Recreation Recovery (UPARR) program, which was a federal program that operated from 1978 until 2002. UPARR provided recreational opportunities that were necessary to address specialized urban needs through community parks and proper facilities.¹⁸ The UPARR had a budget of \$28.9 million in its last year of operation. Adjusting for inflation, this number is equivalent to \$40 million in 2014. \$40 million over the expected ten year duration of H.R.2424 would put the total budget at \$400 million. Since the funding from Congress runs on an annual basis, each year is allocated a set amount of money. \$40 million of the total program budget must be spent each year. Due to the nature of this federal bill, no more of these allocated funds can be spent.

>> *H.R. 2424 Grant Allocation Distribution*

H.R 2424 calls for three different types of grants to be distributed throughout the program:

- Recovery Action grants,
- Rehabilitation grants,
- Innovation and Recreation grants.

The legislation specifies that the three different types of grants receive the following percentages of funds to be distributed over 10 years from the overall program budget of \$400 million. However, the percentage of funds distributed to each grant per year can vary as long as the total percentages remain consistent with what is outlined in the bill. For example 10 percent of the funds for the first year can go towards Recovery Action Program Grants as long as the summation of all funds given for such grants equals the 3 percent the bill calls for. The following table illustrates the percent of funds each grant type receives according to the language of HR. 2424.

¹⁸ National Park Service (2006). *Urban Park and Recreation Recovery: Program in Brief*. Retrieved from http://www.nps.gov/ncrc/programs/uprr/program_inbrief.html

Table 4. Three Grant Types in Legislation and Budget Percentage Over 10 Years ¹⁹

Grants and Administrative Costs	%	Maximum Budget for 10 Years
Recovery Action Program Grants	3%	\$12 Million
Innovation/Recreation Grants	10%	\$40 Million
Rehabilitation Grants	84.5%	\$338 Million
Administrative Costs	2.5%	\$10 Million
Total	100%	\$400 Million

¹⁹ H.R.2424 Community Parks Revitalization Act (2013).

Table 5 below further illustrates the budget allocation from each grant type on a biennial basis. Since Congress cannot carry surplus funds over into following years, the budget for each year must be fixed over the ten years. Since a Recovery Action Plan is a requirement of a project participating in this program, we anticipate the majority of the Recovery Action grants to be spent in the first two years. Innovation and Recreation grants will be ongoing throughout the ten years, with the most of the grant funds being spent in the middle years. The remaining funds are apportioned for Rehabilitation grants, which targets community building and recreational activities, thus, these grants will be transitional and will most likely be spent on projects that come to completion towards the end of the ten year timeline.

Table 5. Allocation Distribution of Funds Over 10 Years Based on Grant Type

Program Grant Type	Years 1 & 2	Years 3 & 4	Years 5 & 6	Years 7 & 8	Years 9 & 10	Total
Recovery Action	\$6M	\$3M	\$3M	\$0	\$0	\$12M
Innovation & Recreation	\$4.8M	\$8.2M	\$13M	\$10M	\$4M	\$40M
Rehabilitation	\$64M	\$66M	\$68M	\$71M	\$69M	\$338M
Administrative	\$1.9M	\$2M	\$2.1M	\$2.1M	\$1.9M	\$10M
Total	\$80M	\$80M	\$80M	\$80M	\$80M	\$400M

New program budgets can be very difficult to predict and there is little doubt that challenges will arise that will necessitate amending the current budget structure. However, the budget is based off of extensive research on similar acts including the UPARR, which H.R. 2424 is modeled after. Therefore, the information presented above is as accurate as it can be in this stage of the budgeting process.

> PERFORMANCE MANAGEMENT <

Using the federally-mandated Urban Park Recreation and Recovery program, or UPARR, as a model for the program's structure and performance management system. The program establishes a system throughout the

grants process. There are four key steps in this system: 1.) define the program goals, 2.) measure the success, 3.) track and report the outcome, and 4.) evaluate the program.

>> *Measuring the Success*

Grantees choose one of the three aforementioned environmental objectives on which to focus and define their success by the listed measurements below:

Table 6. Environmental Goals and Indicators of Success

Goals	Indicators	Measurements
Improve Stormwater Management	- Reduced site runoff volumes - Improved stormwater quality	- Capture the 1st inch of rainfall on 10% of the impervious areas - Reduced runoff water in gallons - Reduced runoff pollutants
Improve Air Quality	- Reduced pollutant levels - Increased days of "good" rating on EPA's Air Quality Index	- Reduce pollutant levels by 10% - Increase "good" rated days on Air Quality Index by 10%
Incorporate Green Technology	Reduced use of energy	Savings on energy bills

>> Track and Report the Outcome

The following key stakeholders have specific roles in the implementation of this program (in order of hierarchy):

- **Congress:** Authorizes the Secretary of HUD the right to execute the bill.
- **White House Office of Urban Policy:** Coordinates with Congress and other departments to set up annual meetings (after the annual report is presented). These meetings allow for aligning activities with departments that administer programs and policies affecting climate change, green jobs, housing, urban development, natural resources management, employment, transportation, community services, and voluntary action.²⁰
- **Secretary of Housing and Urban Development (HUD):** Establishes a program to better leverage resources. It also establishes and publishes in the Federal Register the requirements for preparation, submission, and updating of local park and recreation recovery action programs.²¹
- **Office of Departmental Grants Management and Oversight (ODGMO):** Manages and supervises the grant allocation process. This office is within HUD and will create a team to evaluate grant applications and manage grant allocations.
- **Parks Revitalization Office (PRO):** Reviews the grant application process and administers grants to local municipalities and projects.
- **Local Municipalities:** Apply for, receive and execute approved grants as well as meet project requirements if they receive direct funding. If other projects within local municipalities receive grants, the local municipality is involved in monitoring the project process and in coordinating with other projects that receive grants. Local municipalities and the local parks departments can apply for grants and choose to work together in a project accordingly.
- **Projects:** Apply for, receive and execute approved grants for proposed projects. Throughout the process they are required to collect data and comply with guidelines established by the local municipality. Projects must collect and record data to submit to project managers monthly. Project managers coordinate with the Parks Revitalization Team and compile information for annual reports to the HUD.

²⁰ H.R. 2424 Community Parks Revitalization Act of 2013.

²¹ H.R. 2424 Community Parks Revitalization Act of 2013, Section 106.

>> Reporting Structure

Performance Reports show annual progress on the physical completion of each grant, financial expenditures to date, budget revisions if needed, activities and future plans, progress on meeting project objectives, and additional information pertinent for grant completion.

- **Annual Reports:** Each fiscal year, project managers submit annual reports to the Secretary of HUD. Annual reports directly detail the project impacts, including both quantitative and qualitative information, such as the number and types of jobs created, stormwater management enhancement, air quality improvement, and green technology implementation based on targeted impacts and the measurement system.

Table 7. Annual Report Criteria → Reported to Secretary of HUD

Program Impact		
Job Creation	● Number and types of jobs created	Quantitative
Stormwater Management	● Capture the rainfall on 8% of the impervious areas ● Reduced runoff water in gallons ● Reduced runoff pollutants	Qualitative Quantitative
Air Quality	● Increase “good” rated days on Air Quality Index by 10% ● Reduce pollutant level by 10%	Qualitative Quantitative
Green Technology	● Types of green technology used ● Savings on energy bills ● Total amount of energy saved through LEED structure	Qualitative Quantitative

- **Interim Report:** At Year 5, HUD submits an interim report to Congress. The reports contain two main sections: 1.) abridged information from the five previous annual reports, and 2.) an administrative evaluation of the HUD’s progress on administering the grants, including budget expense details, number of grants requests received, processed and approved, and grantee compliance to the program goals. Based on project achievements and progress, recommendations should be used to improve upon the program and project implementation and performance.

Table 8. Interim Report as Reported to Congress

Administrative Components			
Budget Expense	\$40 M	- Detailed financial report of administrative, operation, personnel costs, and OTPS - Amount in dollars of grants requested - Amount in dollars of grants allocated - Amount in dollars of complimentary/ matching funds	Quantitative
Grants	40 grants approved	- Number of grant requests received - Number of grants processed - Number of grants approved	Qualitative Quantitative
Grantee Compliance		- Number of projects that achieved 90% or more of goals - Number of projects that reached 60-89% of goals	Qualitative Quantitative

- External Audits:** The Comptroller General and Secretary of HUD will establish guidelines for the implementation of external audits at years 4 and 9 in preparation for the Interim and Final reports, respectively. Projects are responsible for contracting the external auditors, and will include this in the budgeting of their grant proposal.
- Final Report:** At year 10, the Secretary of HUD submits a final report to Congress detailing the overall program achievements and impacts. The report includes the number of jobs created, number of projects implemented, and fulfillment of environmental objectives.

>> *Evaluate the Overall Program*

The overall program success is defined as a combination of the achievements of all of the projects implemented as well as the Secretary of HUD's management of the grants. The administrative process success is based upon the number of grants awarded and amount of

funds going towards those projects, the number of jobs successfully created, and the ability to achieve all the tasks within the given timeline. The project success is based on the ability to satisfy the environmental objectives. Together, the administrative success and the project success can be assessed evaluate the overall program.

> CONCLUSION <

In conclusion, the Community Parks Revitalization Act offers the opportunity for urban municipalities across the country to improve the state of their parks and recreational programs across the country. The number of people living in urban areas grows every year, further worsening the negative environmental consequences of such environments. Growing populations mean more cars and transportation, reducing local air quality. Expanding urban areas mean expansion of impervious surfaces, which increase stormwater runoff and contamination of nearby water bodies. Furthermore, the huge energy demand from large populations contained in small areas

creates the heat island effect, resulting in further dependence on already taxed energy grids. Yet, parks offer a means to reduce these impacts of urbanization, in addition to a myriad of health and social benefits such areas and programs also provide. Implementation of the 10-year program outlined by the Community Parks and Revitalization Act offers urban areas the opportunity to improve existing parks and infrastructure, as well as create new ones in especially vulnerable areas. Through this legislation, urban areas will feel the true value ecosystem services bring to the health and well being of its residents.



Lee, Mina. "Untitled." 2011. JPEG file.

> ABOUT THE AUTHORS <

>> Mina Lee, Manager

Mina Lee is currently a graduate student in the Master of Public Administration in Environmental Science and Policy program at Columbia University's School of International and Public Affairs. She received a Bachelor of Fine Arts in Studio Art with a minor in Environmental Studies from New York University in 2011 and during her time as an undergraduate, Mina interned under the senior strategist at Urban Green Energy developing new marketing strategies as well as researching potential clients in the renewable energy sector. Prior to enrolling in the MPA program, Mina was a lecturer for the Visual Arts Department and Intensive English Language Institute at Far East University in South Korea for two years. Upon graduation in May of 2015, Mina hopes to pursue a career that reflects her passions of sustainable city policies and environmentally-friendly urban design.

>> Nicholas Perry, Deputy Manager

Nick graduated from Hamilton College with a Bachelor of Arts in International Relations with a minor in Russian Studies in 2011. After receiving his degree, Nick was awarded a Fulbright Fellowship to teach English in Malaysia. In addition to his teaching duties, Nick also interned for a local NGO, Land Empowerment Animals People, working as a grant writer. After he returned to the US, Nick took a job with Our Children's Earth, an environmental non-profit, working as a campaign coordinator for several of OCE's projects around the globe. Nick is currently an MPA candidate at Columbia's School of International and Public Affairs.

>> Jennifer Blaha

Jennifer Blaha received her Bachelor of Arts in Environmental Biology from Barnard College in 2010. While an undergraduate, Jennifer interned for the Wildlife Conservation Society (WCS), an international wildlife conservation non-profit based in New York, and for the Center for Environmental Research and Conservation (now the Earth Institute Center for Environmental Sustainability) researching the foraging behavior of green sea turtles off Palmyra Atoll in the Pacific. After graduating from Barnard, Jennifer worked as a Program Officer for the Wildlife Conservation Society in the Latin America and Caribbean Program for four years. Jennifer is now pursuing a Master of Public Administration at Columbia University's School for International and Public Affairs while also working as a consultant for WCS and an intern at the Museum of Natural History's Center for Biodiversity Conservation supporting a program to identify individual sea turtles by their unique scale patterns on the head. Following graduation, she intends to pursue a career in wildlife conservation and sustainable development policy.

>> Fahima Islam

Fahima Islam received her Bachelor of Arts in Environmental Studies from New York University in 2012. During her time at NYU, she interned for GrowNYC, an environmental nonprofit that organizes greenmarkets, recycling and gardening programs, and environmental education courses for NYC schools. After graduating from college, Fahima was an educator at the American Museum of Natural History and a researcher for the Sustainable Restaurant Corp, a non-profit organization that helps restaurants in NYC reduce their environmental impact. Fahima is currently pursuing her Master in Public Administration in Environmental Science and Policy at Columbia University's School of International and Public Affairs.

>> Emmelyn Leung

Emmelyn Leung received her Bachelor of Arts in Environmental Studies and Spanish from Bates College in 2013. As an undergraduate, Emmelyn explored urban sustainability issues in different cities, including a former industrial city in Maine and the city of Granada, Andalucía in southern Spain. During this period, Emmelyn partnered with a small business to collect preliminary research and historical information on the environmental implications of a former paper mill and transition it into a community-based museum. After graduating, she continued her cross-cultural pursuits in New York City by working at a non-profit organization that provides intercultural programs for high-school students to serve as ambassadors representing their respective countries. Emmelyn is currently pursuing a Master in Public Administration in Environmental Science and Policy at the School of International and Public Affairs at Columbia University, while simultaneously working as a Design Intern at the NYC branch of Global Green USA, the Coalition for Resource Recovery. Emmelyn intends to pursue urban sustainability and policy issues in cities as a career focus.

>> Ying Lian

Ying Lian received her Bachelor of Environmental Design from University of Colorado at Boulder in 2012. During her time as an undergraduate, Ying has both teaching assistantship and internship experience. Interned at Anthropologie for visual display and it won for the best winter display of the year. After graduate, Ying worked for both non-profit and profit art organizations in Los Angeles, and in Beijing, China. Ying is currently pursuing her MPA in environmental science and policy at Columbia University's school of international and public affairs. She intends to pursue a career in environmental consulting and sustainable management.

>> Dun Lu

Dun Lu received his Bachelor of Science in Environmental Science from Nankai University in 2010, and Master of Engineering in Environmental Engineering from Tsinghua University in 2014. In his time as an undergraduate, Dun participated in National Undergraduate Research Program as a team manager in Environmental Impact Analysis of Tianjin harbor planning. Later in his graduate period, he participated as a research analyst in Sustainability and Recycling -- China-Japan Joint Project, focusing on municipal waste recycling management. Dun initiated to apply theories in social psychology in encouragement of recycling activities in China. Dun is currently a MPA candidate in environmental science and policy at Columbia University, School of international and public affairs.

>> Carolina Rosero

Carolina Rosero is a bilingual environmental sustainability policy specialist committed to working in multi-cultural settings and developing programs that are ecologically robust, economically viable and socially just. After receiving her undergraduate degree in Public Relations at the University of Texas at Austin, she began working on community development projects in Guatemala. She later received an MSc in Gender and Development at FLACSO Ecuador where she subsequently began working in Ecuador's Ministry of Environment in the Socio Bosque Program. During her time at Socio Bosque, she worked with indigenous communities in bridging the gap between natural resource management and economic development.

She actively worked at different levels of program implementation and planning, interacting and negotiating with a wide range of stakeholders, from beneficiaries, to government dignitaries and international government and non-governmental representatives. Carolina is currently pursuing an MPA in environmental science and policy at Columbia University's School of International and Public Affairs and works as a research and administrative intern in the Earth Institute's executive director's office. Upon graduating, she aspires to continue working on the interface between environmental, natural resource management and economic development issues at a global level.

>> Grace Rousseau

Currently pursuing a MPA at Columbia University in Environmental Science and Policy, Grace's interests lie within the central idea that environmental sustainability needs to include an educational component. Grace taught science at the secondary level for over 25 years, including AP level coursework in Chemistry and Environmental Science. She has earned a Masters in Education in Curriculum and Instruction in Science from the University of Minnesota. Her experience in curriculum writing, evaluation of learning and instructional practice provides the basis for communicating about and the analysis of the complex ideas and issues in urban sustainability. She intends to pursue a career with an organization that incorporates education as a key component of their sustainability initiatives.