F.M. KIRBY FOUNDATION SOLICITATION EVALUATION FORM

DATE: August 27, 2019 **REQUEST DATE:** July 31, 2019
Last grant acknowledgement: Yes
Program Area: Environment/Animals

APPLICANT:
Environmental Defense Fund, Inc.
257 Park Avenue South
New York, NY 10010

CONTACT: Mr. Fred Krupp, President
PHONE: 212-505-2100
PAYEE OTHER THAN ADDRESSEE:

AMOUNT REQUESTED: $90,000 **NATURE OF REQUEST:** Toward the reduction of nitrogen oxide (NO_x) and sulfur dioxide (SO_2) air pollution in the Adirondacks

GRANT HISTORY

LAST GRANT DATE: 9/17/2018 **LAST GRANT AMOUNT:** $90,000 **AFS DATE:** 12/5/2018

2014	$149,000	4/14/2014	Toward science-based policy solutions to protect the Adirondacks from acid deposition-$100,000; toward the Roadmap to Recovery Roundtable-$49,000
2015	$100,000	9/14/2015	Toward science-based policy solutions to protect the Adirondacks from acid deposition
2016	$100,000	9/12/2016	Toward science-based policy solutions to protect the Adirondacks from acid deposition
2017	$90,000	9/15/2017	Toward science-based policy solutions to protect the Adirondacks from acid deposition
2018	$90,000	9/17/2018	Toward science-based policy solutions to protect the Adirondacks from acid deposition

See notes attached.

DLK COMMENTS: EDF has a strong balance sheet. The budget EDF provided (for protecting and restoring the Adirondacks ecosystem) accounts for less than .5% of EDF's entire expense budget. According to Ryan Williams, the $1.0M budget will entail multidisciplinary advocacy anchored in science, economics and law. 50% will be devoted to protecting crucial clean air standards and the other half will be directed to securing the policies for future progress (ie: enforcement). Ryan stated that the EPA has ceased updating its deposition maps and Adirondack-specific analyses so EDF assembled key findings from the National Atmospheric Deposition (NADP) 2018 symposium, which are referenced in his memo (attached). He noted that a 2018 Adirondack Lake Assessment Program report found that 25% of lakes with long-term monitoring data have increasing pH level trends and 75% showed no change. Furthermore, 75% of the lakes observed in 2018 fell in the "circumneutral" (non-impacted) range of pH levels. The average pH levels measured in 2018 ranged from 5.9 to 8.6. There is a table referenced in his memo that explains what the different pH ranges mean. Financial analysis attached.

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ECC COMMENTS: Much of this request aligns with the science I heard from Dr. Charlie Driscoll at last fall's Acid Rain Conference and coincides with the "next steps" determined at that time. Specifically, EDF is actively partnering with the Adirondack Council in advocating that the state of New York establish critical loads for the Adirondacks; these efforts are strongly supported by the science within the request, which provides a clear-cut benchmark for protecting the region from further NOx (nitrogen oxide) and SO_2 (sulfur dioxide) pollution. (This partnership also complements our last grant to the Adirondack Council designated towards these advocacy efforts.)

It is also encouraging to see bipartisan support and corporate entities allying with EDF in order to protect the Mercury and Air Toxics Standards (MATS) already in place. Given the financial investment corporations have already made to comply with these standards, this appears to be a rare case of ideological alignment for both sides. We should look for the EPA's final MATS ruling in the next few months, as I expect EDF and others will be funneling a great deal of resources towards defending these standards should the final ruling be counter to their interests.

My guess as to why the request focuses more so on air quality than water quality is not because there hasn't been significant improvement in the water quality of Adirondack lakes (we know there has certainly been from reports at the aforementioned Acid Rain Conference), but because tracking air quality is intrinsically correlated to the "solutions to protect" the Park (as our designation highlights), while tracking water and soil quality is more indicative of the results of these solutions. ** Also, given WHB's feedback to EDF that last year's request was too long and repetitive, perhaps they homed in on just this one aspect of Acid Rain deposition. We will see what Mr. Williams sends along in response to DLK's email.

While it is promising that the updated data from the EPA demonstrates the progress in decreasing levels of harmful SO_2, mercury, and NOx deposition since 1989, the delay in the setting of critical loads for the Adirondacks is quite frustrating. However, I am confident in EDF's progress and efforts to translate its scientific data into policy change and action. I recommend the budgeted $90K toward science-based policy solutions to protect the Adirondacks from acid deposition.

SDK COMMENTS: Based on the narrative, it would seem that there has been so much accomplished in terms of <u>air</u> quality, but in terms of water quality in Adirondack lakes, the data/graphs, are less clear to me. Team comments in this regard would be helpful.

** Maybe, but we also have learned that <u>soil</u> quality improvement is a much longer process; I wonder if there truly has been any.

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FM KIRBY FOUNDATION
Financial Statement Analysis

Grantee Name:	Environmental Defense Fund	**Date:**	8/20/2019
Prepared By:	DLK		
Grant Request Amt.	$ 90,000	**Type of Financial Report Submitted**	Audit
Budgeted Amt.	$ 90,000	**Period Covered in Financial Report**	9/30/2018
Audit Firm	BDO USA, LLP		
Opinion	Present Fairly	**Date of Report Issuance**	12/5/2018
Basis of Acctg.	GAAP		

Current Ratio (Liquidity Ratio/Working Capital Ratio)	6.84	**Amount of Unrestricted Net Assets (Operating Reserve)**	$ 60,294,157

Note: A current ratio measures an organization's ability to pay short-term and long-term obligations. The higher the ratio, the more capable the organization is of paying its obligations. A ratio under 1 indicates that the organization's liabilities are greater than its assets.

Allocation of Functional Expenses	9/30/2018	%	Must Read Financial Statement Notes
A. Program Service Expenses	$ 157,987,208	82%	Ideally program expenses should be at least 70% of total budget.
B. Management and General	$ 12,708,651	7%	
C. Fundraising	$ 21,204,106	11%	
D. Total Expenses	$ 191,899,965	100%	

Comments/ Notes:

BUDGET:
The FY20 budget is basically flat to FY19 annualized expenses. Increases in personnel expenses of $28K (12%) are offset by decreases in professional fees. There isn't a lot of detail with regards to the $1.0M budget . I've asked Ryan Williams if he could break out major expense categories (ie: research/ advocacy/ legal/ etc). Through June 30, 2019, 2018, EDF is tracking to be over its 18/19 budget by approximately $100K (10%). The $90K grant request is 8% of the budget.

AUDIT:
EDF had a $31.5M net operating surplus for FY18. Total support grew by a whopping $62.0M (40%) from FY17. Contributions were up $25M (25%), while Foundation giving was up $38M (87%). Program expenses increased by a modest 3% ($4M)$15M (11%), primarily in the scientific research/policy development areas of ecosystems and health. Supporting services expenses were up $5.7M (20%). EDF paid down $1.1M on notes payable. The Organization was in compliance with all debt covenants for its loans as of September 30, 2018. The Organization had an unsecured line of credit of $7.5M, with no outstanding balance as of September 30, 2018. EDF had investments totaling $87.7M, of which $13.7M were endowment related.

There are no red flags as a result of my review.

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DISPOSITION:

( ) Rejection

( ) Hold for review on/about:

(xx) Approval for: **$90,000**

(xx) Hold for Board Review

(xx) Insert Information: **Toward science-based policy solutions to protect the Adirondacks from acid deposition**

( ) Other:

Initials: ldk Date: 8/27/19

Check #:_____ Date:_____

KIRBY FOUNDATION

Financial: First, the budget simply states Project Budget. What specifically will this be funding with regards to protecting the Adirondacks? Could you allocate the $1.0M into major categories (i.e., advocacy/grassroots campaigns, legal defense, scientific research/ data analytics, etc.)?

This work will entail multidisciplinary advocacy anchored in science, economics, and law. About half of our multidisciplinary advocacy will be devoted to protecting crucial clean air standards now in place such as the limits on coal plant mercury, arsenic and acid gases, and the national health-based air quality standards, as these drive important pollution reductions that are help protect the Adirondack ecosystem from acid deposition. And about a half of our project budget will be directed to securing the policies for future progress such as affirmatively enforcing the Clean Air Act's "good neighbor" protections against interstate smokestack pollution and advocating the next generation of nitrogen oxides reductions from coal plants together with critical loads for the Adirondacks. Overall, these efforts to protect and advance clear air standards will require about two-thirds legal and regulatory advocacy and about one-third technical, policy and economic analyses. Our key grassroots partners include Moms Clean Air Force, a project of EDF, the Adirondack Council, and our active participation in the multi-organizational Climate Action Campaign. The costs of these advocacy and grassroots efforts are not reflected in the proposed project budget.

Programmatic:

QUESTION 1: Second, are there any more analytics on the water quality of the Adirondack Lakes?

ANSWER 1: While EPA has ceased updating its informative deposition maps and Adirondack-specific analyses of trends, we have assembled summaries of key information from the National Atmospheric Deposition Program (NADP) 2018 symposium and fall meeting. Some of the key analyses presented at the symposium related to recovery of lakes in the Adirondacks and are summarized here:

- Analysis[i] by Dr. Charles Driscoll of Syracuse University found that controls on emissions of sulfur dioxide and oxides of nitrogen have reversed the process of historical acid deposition, which contributed to acidification of soils and waters in the Adirondacks, "...resulting in decreases in acid deposition that have led to decreases in sulfate and nitrate concentrations and increases in the acid neutralizing capacity (ANC) in surface waters of acid-sensitive regions like the Adirondacks of New York." The analysis demonstrates that key positive indicators of recovery, such as an increase in ANC (i.e. a measure of the buffering capacity for a water body against acidification) and a decrease in inorganic monomeric aluminum (ALI) are occurring at many lakes in the Adirondacks. Further, Driscoll's accompanying analysis of the long-term Adirondack lake monitoring data (48 lakes from 1992-

2017) showed "universal" decreases in harmful sulfates and showed nitrates "decreasing in large numbers.[ii]"

- Analysis[iii] by Dr. Barry Baldigo of the US Geological Survey on the impact of the 1990 Clean Air Act Amendments (CAAA) found that "[w]ater chemistry and discharge from six streams (1991-2017), and fish data from dozens of quantitative surveys (1979-2017) were assessed to ascertain the effects of the CAAA on acid-base chemistry and fish assemblages in acidified Adirondack and Catskill Mountain streams. Concentrations of sulfate and inorganic Al [aluminum] decreased, whereas pH and acid neutralizing capacity increased significantly in many previously acidified streams between 1991 and 2017...{findings from the study} indicate that the chemistry and biology of many streams in acid-sensitive regions of New York are beginning to recover in response to the 1990 CAAA." For Adirondack streams, the analysis found that fish communities have delayed recovery or are just beginning to recover.[iv]

Additionally, a 2018 Adirondack Lake Assessment Program report, a partnership between scientists and volunteers, found that 25% of lakes with long-term monitoring data have increasing pH level trends (meaning they are less acidic) and 75% showed no change.[v] Furthermore, 75% of the lakes observed in 2018 fell in the "circumneutral" (non-impacted) range of pH levels. The average pH levels measured in 2018 ranged from 5.9 to 8.6 (see table from the report below).

Table 3. Assessment of lake acidification based on pH value.

Lake acidity	Assessment
pH < 5.0	Acidic: critically impaired
pH 5.0 – 6.0	Acidic: threatened
pH 6.0 – 6.5	Acidic: acceptable
pH 6.5 – 7.5	Circumneutral: non-impacted
pH >7.5	Alkaline: non-impacted

QUESTION 2: There was one chart but it wasn't super clear nor did it have a legend to indicate what the different elements are. I know some of them but the ANC or AINC is a mystery.

ANSWER 2: The chart's use of "ANC" is explained here: "Acid neutralizing capacity (ANC) is used to quantify the acid-base status of surface waters. Acidic waters have bean [sic] defined as having ANC values less than zero, and acidification is often quantified by decreases in ANC."

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[i] Driscoll et al, "Recent and potential future changes in the chemistry of surface waters of the Adirondack region of New York in response to decreases in atmospheric deposition," Nov. 8, 2018. Available at: http://nadp.slh.wisc.edu/conf/2018/?sID=5

[ii] Presentation by Dr. Driscoll, available at: http://nadp.slh.wisc.edu/conf/2018/pptpdf/1808_driscoll.pdf.

[iii] Baldigo et al, "A Clean Air Act success: Indicators of recovery in fish assemblages and water quality from acidified streams of the Catskill and Adirondack Mountains, New York," Nov. 8, 2018. Available at: http://nadp.slh.wisc.edu/conf/2018/?sID=5

[iv] Presentation by Dr. Baldigo, available at: http://nadp.slh.wisc.edu/conf/2018/pptpdf/800_baldigo.pdf

[v] Laxson, C., Yerger, E., Favreau, H., Regalado, S., and D. Kelting. 2019. Adirondack Lake Assessment Program: 2018 Report. Paul Smith's College Adirondack Watershed Institute. Available at: https://www.adkwatershed.org/sites/default/files/alap_2018_v1_web.pdf