







## Welcome to ECHO

ECHO encourages visitors to view the natural environment as part of their neighborhood and to explore, learn about, and consider opportunities for stewardship. This work is delivered by a dedicated team of 25 staff; 175 volunteers and interns, who serve more than over 15,000 volunteer hours annually; and 40 community and social service partners.

Our Mission: ECHO educates and delights people about the Ecology, Culture, History, and Opportunities for Stewardship of the Lake Champlain Basin.



Dear Friends,

During a recent event, I was asked what I like best about working at ECHO. I hear this question often and the same answer comes to mind each time: "The people!" ECHO's staff, volunteers, and interns are passionate people and for good reason: working at ECHO is a transformative and energizing experience.

Each time I watch a school group or a new American mom and her child discover Champ Lane or the Butterfly Pavilion for the first time, I feel this place vibrating with energy and inspiration. I am reminded that ECHO is a catalyst for learning. Our animal care specialists, volunteers, and education staff all believe deeply that education is a necessity—not a nicety. Every one of our team members makes a personal investment in his or her own way, aiming to provide families with the resources and programs necessary to meet the growing and diverse needs of our community.

At its heart, ECHO inspires. Through our live animals and engineering challenges; through our vacation camps, school visits and community events; and through the passion we bring to every learning moment, every guest, every animal in our care, we bring our community together. Building science knowledge, caring for the environment and instilling a devotion to lifelong learning comprise the core of the ECHO experience.

Our annual report entitled "A Day in the Life" has been designed to showcase data, images, and the people that dedicate themselves each day to our mission. We hope as you review these pages you see reflected the contributions ECHO makes to our greater community and that find something new and inspiring.

Whether you are a member, partner, donor or friend, thank you for investing in ECHO and for believing in the people who serve to inspire the next generation of thoughtful citizens and community leaders. We are grateful for the opportunity to serve our community. Thank you for the contributions that make it all possible.

*Phelan R. Fretz*  
Phelan R. Fretz Ph.D.  
Executive Director





364,859  
GALLONS OF  
WATER MOVED  
THROUGHOUT  
THE BUILDING

7:23 am  
Jenn cleans the sturgeon tank

5:00 am  
Jeremy & facilities team  
ready the building

Our facilities staff start early to prepare everything from the book nook in Champ Lane to the 46 pumps, water coolers, and boilers that power our tanks.



936 LBS OF  
FOOD EATEN  
BY ANIMALS



5:55 am  
Animal care staff guide  
college interns in career  
focused skills

Staff instruct interns as they dive in every morning, 365 days a year, checking every animal and habitat—from Homer the snapping turtle to the sturgeon—and helping to provide state of the art animal husbandry for all of ECHO's reptiles, amphibians, and fish.

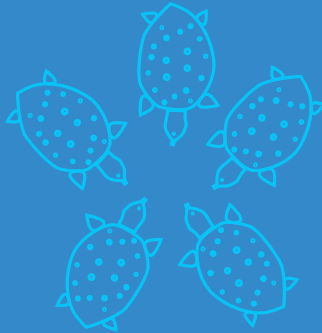


## Providing career relevant experience

Annually, 100+ student interns attending The University of Vermont, Champlain College, Saint Michael's College, and regional middle and high schools gain hands-on experience while working alongside our staff.

## Saving threatened turtles— 500 and growing

This year, ECHO celebrated the 10th anniversary of partnering with Vermont Fish and Wildlife in the Spiny Softshell Turtle Headstart program. Each year, neonate turtles overwinter at ECHO and are released back into the wild in June.







8:27 am  
Elizabeth welcomes  
Early Learning  
Readiness families

ECHO partners with the Burlington YMCA to provide a twice weekly school-readiness program for low-resource and new American preschoolers and their caregivers. The program is now in its 5th year.

9:25 am  
Nina hands out  
theater programs

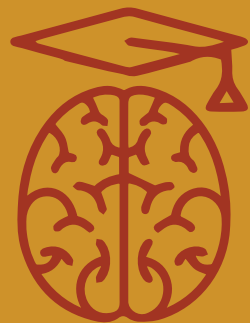
In partnership with the Very Merry Theatre, ECHO supports a dozen K - 8th grade classrooms to write and perform original short plays on a watershed topic.

250 SCHOOL  
GROUPS VISITED  
ECHO

10:08 am  
Noella greets  
school groups

Education staff host teacher trainings and education programs for over 82 schools and 10,000 students.

263 STORIES  
READ



## Addressing community needs

ECHO's Early Science Learning Initiative reaches more than 1,500 early learners and 100 educators each year through supporting partnerships with King Street Youth Center, Burlington Children's Space, the YMCA preschool network, and other early learning providers.

*"Because of the Early Science Learning Program....All of our families, both privileged and under-resourced, are more likely to take advantage of a resource in our community and foster the growth of scientific exploration, thinking, and problem-solving. A win-win for all."*

STACY WEINBERGER, EARLY EDUCATION DIRECTOR, KING STREET CENTER



10:46 am  
Chris builds a ROV with  
high school students

Supported by meaningful partnerships, like  
Greensea Systems in Richmond, Vermont,  
ECHO provides high-impact science-based  
learning experiences in and outside our walls.



ECHO'S WATER SUPPLY  
CANNOT COME FROM  
THE LAKE DUE TO  
ZEBRA MUSSELS



11:17 am  
Barry facilitates the Leahy  
Environmental Summit  
committee meeting

ECHO convenes the two-day Summit biennially,  
establishing Vermont as a leader in building  
sustained, multi-sector, watershed-level initiatives that  
build resilience and create a culture of clean water.

12:04 pm  
Cailee teaches the  
art of live education  
demos

Paid internships provide graduate and  
undergraduate students practical  
experience teaching visitors of all ages.

1,200 STUDENTS AND  
TEACHERS ATTEND  
COMMUNITY SCIENCE  
NIGHTS



*"UVM Physics values ECHO's role in our community and the incredible  
forum it provides for training developing scientists in the vital skill of  
communicating science."*

DAVID HAMMOND AND LUKE DONFORTH, UNIVERSITY OF VERMONT DEPARTMENT OF PHYSICS

Leveraging the power of  
100 stakeholders

ECHO serves as the backbone for The Vermont Clean Water Network—a collection  
of 100 local and state agencies, non-profit organizations, businesses, farms, and  
communities of faith that advocate for clean water.





## 1:00 pm Shannon delivers animal demonstrations

Animal care staff deliver 750 programs focused on the Lake's native wildlife and its conservation.



## 12:34 pm Champ Lane exhibit fills up with little scientists



## 2:12 pm Nina preps for NBC5 filming

ECHO believes that science literacy leads to good citizenship. By supporting the work of community partners like Let's Grow Kids and UVM Herpetologists, ECHO connects a wider audience to science topics.

TOM HAS MADE  
29 SHOWS THIS YEAR  
COVERING TECHNOLOGY,  
CLIMATE CHANGE,  
EXPLOSIVE CHEMISTRY,  
EARLY LEARNING,  
BRAIN SCIENCE, AND EVEN  
BASIC CIRCUITRY

39,942 PLASTIC FRUIT  
AND VEGETABLES  
FROM THE CHAMP LANE  
FARMERS MARKET  
WASHED

## Promoting early science learning

In partnership with Let's Grow Kids, ECHO launched Champ Lane as part of the museum's Early Science Initiative. This permanent exhibit further positions ECHO as a key resource for early learning by creating high-quality curricula, materials, and training opportunities to support early science readiness across the state of Vermont.

## Supporting local teachers and strengthening schools

This year, ECHO expanded its outreach programs to include professional development opportunities for teachers in support of student personalized learning pathways to graduation.







1,640 HOURS SERVED  
BY TEEN LEADERSHIP  
TEAM MEMBERS

## 5:15 pm Elijah runs the Touch Tank during Community Science Night

Celebrating its 10th anniversary, ECHO's teen leadership program inspires students to directly engage the public in science related activities. Teens receive valuable science content knowledge, job skills, and leadership experience.

## 3:30 pm Alida guides floor activities

Ranging from 14 to 87 years young, volunteers recognize ECHO as a place where lifelong learning is reinforced daily and as a welcoming place for all ages to serve their community.



16,655 HOURS  
SERVED BY  
VOLUNTEERS

## 4:45 pm Education staff get campers ready for pick-up



48,402 GOLDFISH  
CONSUMED BY CAMP  
AND OVERNIGHT  
PARTICIPANTS



## Transforming lives through collaborations

Annually, ECHO's teen leadership program hosts Community Science Night, an evening for kids and their Mobius mentors. This year's event featured a scavenger hunt inviting guests into the "Butterflies, Live!" exhibit, showcased the Champlain Sea Tank, and challenged mentors and mentees to save turtles through an engineering design challenge.

## Building new skills within our adult community

Working with the Howard Center, Reach Up, Department of Labor, Transitional Services, and Vermont Associates, ECHO provides individuals making mid or late career changes with opportunities for practical experience and skill development.





5:55 pm  
ECHO serves as a  
community resource for  
2,173 people  
celebrating MLK Day

This annual, free public day helps community members reflect on the social justice legacy of Dr. King and explore issues of diversity and inclusion through story, song, and conversation.

AWARD-WINNING ARTIST,  
FRANCOISE MANISHIMWE,  
PAINTED THIS MARTIN  
LUTHER KING, JR. PORTRAIT  
IN 7.5 HOURS DURING ECHO'S  
MLK DAY CELEBRATION



8:17 pm  
Travis loads upgrades to the  
Northfield Savings Bank Theater

ECHO invites guests of all ages and abilities to explore the wider world through our rotating selection of National Geographic 3D films.



8:45 pm  
ECHO is now quiet

In a few hours, our doors will open again to a new day of science discovery.



## Growing our Open Door access program

ECHO strives to be accessible to all by breaking down financial, geographic, and cultural barriers. By working with an extensive network of more than 40 social service partners, we reach out to low-resourced families, new Americans, and underserved residents.

## Open Door At-A-Glance

23,362 GUESTS received free or significantly reduced admission

8,893 PEOPLE used the library passes distributed to 575 libraries statewide

2,086 FAMILIES utilized the free membership and \$2 passes distributed through 40 social service agencies

9,769 STUDENTS visited from schools, preschools, and recreation programs

441 MILITARY FAMILIES welcomed through our participation in the Blue Star free admission program

2,173 PEOPLE visited during the Martin Luther King, Jr. Day event





## Designing the Future We Need

One of our primary objectives is to bring people together from different backgrounds around shared learning, cultural, and environmental experiences. As an open, inclusive, collaborative, and fun space we directly support social innovation.



## Bridging Social Capital

We take our role as a community hub seriously. ECHO is an active member in Burlington's Diversity & Equity Initiative: We All Belong, now in its seventh year. Among our core goals are to build social capital by forging unexpected connections between diverse collaborators and audience members, to bring people together across differences, and to build a more cohesive community.



## Leading the 2017 Leahy Environmental Summit

"Simply put, the Champlain watershed is our region's most precious resource," stated Thomas Leavitt, President & CEO of Northfield Savings Bank, the Summit's underwriting sponsor. "With the stewardship of Senator Leahy and ECHO, we have an opportunity to bring together the finest thought leaders to tackle the most formidable challenges."



# Financials

INCOME	FY 2017*	FY 2016
Gifts and Grants	\$1,259,348	\$1,618,356
Admissions	1,196,907	1,033,693
Memberships	327,171	235,663
Function Rentals	267,486	205,629
Annual Fund	182,169	108,461
Program Fees	80,722	86,001
TOTAL OPERATING REVENUE & SUPPORT	\$3,313,803	\$3,287,803

EXPENSES	FY 2017	FY 2016
Program Services		
Exhibits and Programs	\$788,743	\$612,827
Animal Care and Facilities	557,258	560,038
Visitor Services	447,427	618,207
Environmental Summit and VT Clean Water Network	167,878	220,190
TOTAL PROGRAM SERVICES	\$1,961,306	\$2,011,262

Support Services		
General and Administration	\$399,761	\$413,088
Fundraising	228,791	116,558
TOTAL SUPPORT SERVICES	\$628,552	\$529,646

TOTAL EXPENSES	\$2,589,858	\$2,540,908
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NET SURPLUS/(DEFICIT) BEFORE DEPRECIATION & INTEREST	\$723,945	\$746,895
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Depreciation	\$574,072	\$508,380
Interest	14,194	16,331

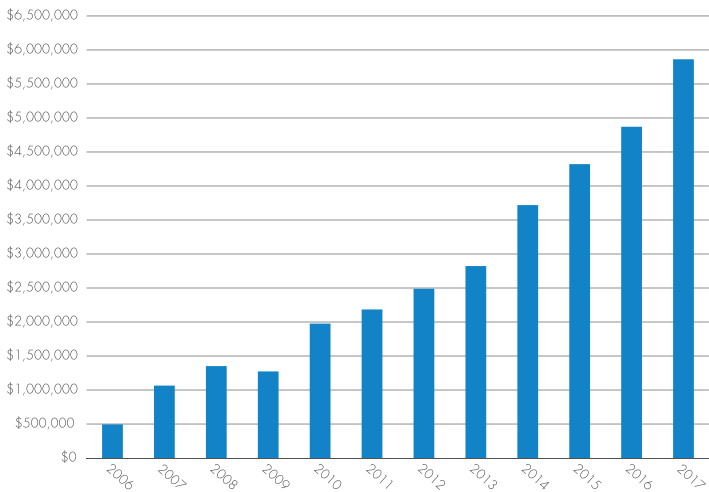
TOTAL DEPRECIATION & INTEREST	\$588,266	\$524,711
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NET SURPLUS/(DEFICIT)	\$135,679	\$222,184
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ENDOWMENT INVESTMENTS AT MARKET VALUE	FY 2017*	FY 2016
Beginning balance	\$4,870,767	\$4,321,268
Net Contributions	387,000	844,856
Funds Transferred from Endowment to Support Operations	0	0
Net Unrealized/Realized Gains (Losses)	605,188	(295,357)
TOTAL ENDOWMENT INVESTMENTS	\$5,862,954	\$4,870,767

\* PRELIMINARY, UNAUDITED RESULTS. ECHO’S FISCAL YEAR ENDS ON MARCH 31

ENDOWMENT: FISCAL YEAR END MARKET VALUE



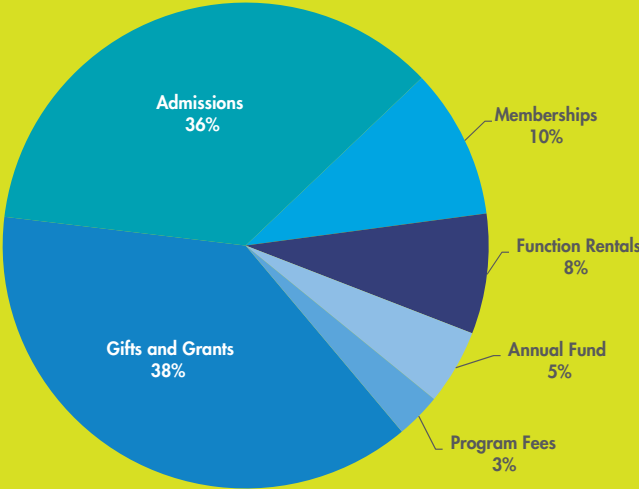
Dear Friends,

As we approach our 15th anniversary year, I am struck by the tangible and compelling progress this science center has made in fulfilling its mission and vision. This success is a result of not only the superb quality of people who work and volunteer here, our Board of Directors, our community partners, and the many friends who have entrusted us with their gifts and support but how well they all work together. ECHO is a community in every good sense of the word. And this report celebrates the work of those people. It is through the generosity of this community of partners, volunteers, donors, and friends, that we have been able to continually invest in the experience and opportunities we provide our guests. For that, we are forever humbled by your support. Thank you!

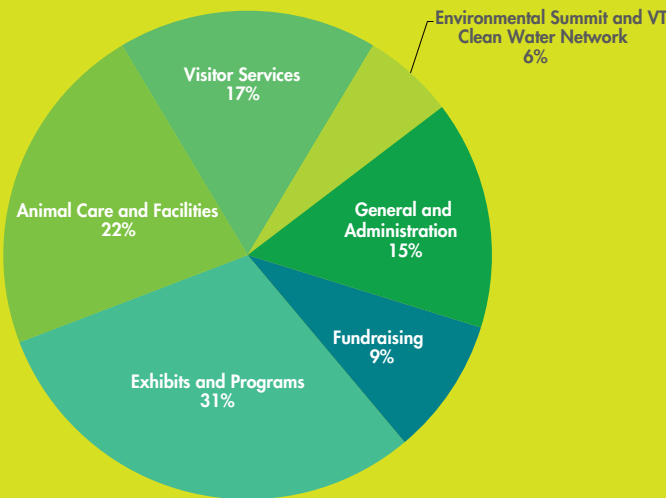
Sincerely,

Timothy R. Volk  
Chair, Board of Directors

FISCAL YEAR 2017 INCOME \*



FISCAL YEAR 2017 EXPENSES \*



\* PRELIMINARY, UNAUDITED RESULTS

## FISCAL YEAR 2017 BOARD MEMBERS

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Kyle Dodson  
Carolyn Dwyer  
Bethany Gibbs  
William Gottesman  
Thomas Leavitt  
Thomas A. Little  
Cate MacLachlan  
Elizabeth Miller  
Julie Moore  
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Paul Plunkett  
David Raphael  
Scott Rossborough  
Mark Saba  
Paul R. Sisson  
Tim Volk  
Clare Wool

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Brian Dunkiel  
Tom Berry

### Executive Director

Phelan R. Fretz

### BOARD EMERITI

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