



Bayou Foliage

Volume 16 No. 3 March 1998

A publication of the
Armand Bayou Nature
Center Volunteers

"Interested + Informed + Involved"

MARCH CALENDAR

- Mar 1 Volunteer Board Meeting, 4:00
- 7 Stewardship Saturday
(Trail, forest, facilities)
- 12 Volunteer Meeting
Bayou Foliage Inputs Due
- 14 Continuing Education
Tree Identification
- 21 Stewardship (Prairie and marsh)
- 28 *Along The Bayou* Mailing, 10:00

Volunteer of the Month

The Volunteer of the Month for January is **Ken Russell**. Ken became a volunteer in the spring of 1997 and put in over 80 hours by the end of the year (more than twice the required volunteer time.) He works as a greeter in the entry building on weekends. On stewardship projects and with the paper recycling program. Ken says he became a volunteer because "I wanted to get outdoors. I was interested in developing myself as a naturalist. Birding is one of my hobbies, and volunteering is a natural tie-in to that. It provides lots of opportunities to achieve these goals - more opportunities than I've had time to exploit." Thanks Ken. Your help is especially appreciated during this busy time of year.

ABNCV MEETING Thursday, March 12

- 6:30 - Snacks and Conversation
- 7:00 - Program
- 8:00 - Business meeting
- 9:00 - Adjourn

Program: Joan Few and Robbie Brewington, staff members of the Humanities and Human Services Dept. at UHCL, will discuss the pre-history of ABNC. They will explain the excavations that took place on the property, provide some of the artifacts found for us to look at, and show some slides. They will also tell us about the prehistoric inhabitants of this area. Please join us for an informative evening.

Happy Birthday!

Merle Bunde	3-2	Dekka Hassey	3-4
Jim Crabb	3-10	Jane Bingel	3-12
Mark O'Rear	3-12	Kathy Appleby	3-13
Gib Harper	3-14	Zel Arbuckle	3-16
Fran Cognata	3-20	Ann Brinly	3-23
Sterling Heller	3-29	Joe Clem	3-29
Marsha Galvan	3-31	Charles Boyle	3-31

Belated birthday wishes to Marian Higgins, whose February 23rd birthday was not included last month.

CONTINUING EDUCATION

Date: Saturday March 14th 10 a.m.
Place: ABNC Auditorium
Speaker: John Ross of the Texas Forest Service
Topic: Tree Identification

A number of volunteers have expressed an interest in a program such as this. John Ross is very knowledgeable in the area of tree I.D., and will give an interesting presentation. It may include a walk in the woods for an up close opportunity to identify some tree varieties. Please join us! The sign-up sheet is in the break room next to the volunteer logbook.

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of Celanese*

MINUTES OF THE ABNCV MEETING THURSDAY, FEBRUARY 12, 1998

Jean Kruse welcomed our speaker Mr. Dick Gregg, newly elected President of ABNC Board of Trustees. Dick has a large involvement in the community and is eager to share his relationships with the nature center and help promote awareness and additional funding. Next, George Regmund, our Director, gave an overview of plans for this year. We want to continue our strong education offerings and will add a new event - Down on the Farm. Also, we are revising our trail guides, which will be on stakes on the trails and will aid identification. Stewardship will involve spraying 300 acres of tallow trees, the continuation of work to restore our prairie, and work on Rare Plant Rescue through the transplanting of native coastal prairie plants. Our work with Clean Water for Armand Bayou will involve educating people on non-point source pollution. Also, having Dr. John Jacob officiating in the farmhouse will bring more exposure to the nature center. We received a \$42,000 grant from Coastal Management Program, which will go toward marsh restitution. Two encroachment issues will be of concern in the spring: a flood control project of the Harris County Flood Control District and the city of Pasadena which will impact runoff into Armand Bayou and the planned raising of the bridge over Mud Lake. Capital upgrades at ABNC will include a new equipment shed and a prairie overlook platform. We are also looking into upgrading our entrance from Bay Area Boulevard and will continue to operate within a balanced budget.

At 8:00 Helen Burton called the business meeting to order. The minutes of the January meeting were approved as published in the *Bayou Foliage*. Georgia Colyer read the treasurer's report, which had a checking account balance of \$3,748.63 and savings account balance of \$601.01. The proposed 1998 budget was passed out and discussed, we will be voting on it at the March meeting. There is a \$2,500 donation to the nature center (which included previous years' unspent donations) which will go to buy a new floor in the break room and lab, plus new interpretive supplies.

The Volunteer of the Month for January is Ken Russell. Ken has been a volunteer since last February and has worked many hours on bird counts, special events, and greeting. George gave the staff report: February 28 is the volunteer campout, on February 21 volunteers will have an opportunity to hear Brain Zamba give his astronomy lecture at 6:30, and the next stewardship Saturday will be focused on doing a prairie burn and the interior painting of the farmhouse. Soon the farmhouse will have hot water in the downstairs kitchen.

Jean Kruse reported that on March 14 John Ross will be giving a Tree ID class for continuing education. Our March volunteer meeting will have UHCL speakers on the prehistory of ABNC and its inhabitants. April 4 will be Down on the Farm, Earth Day is April 18 and 19; the Garden Tour is April 25 & 26, and Wildscapes will be May 2. Hanna Drago asked for volunteers to relieve at the admissions desk during the lunch hour on Wednesdays and Fridays and all day Thursday.

Michael Vu has many outreach opportunities this spring: March 28 we will have a booth at Pasadena Fair Grounds, April 17 for Earth Day at NASA, and March 22 & 24 at local schools. Michael would appreciate any help.

Barb Hill told us about the upcoming Garden Tour on April 25 & 26. Eight homes will be on the tour and the ticket price is \$6.00. She will need approximately 80 volunteers. Becky Brignac provided details about the upcoming Down on the Farm day; highlights will include small animals, roping, blacksmithing, weavers, and singing cowboys.

Helen reminded us that Volunteer training is this month and that anyone wanting to crosstrain should contact Mary Alice and that mentors are needed for the 29 trainees. Marilyn Jankowski thanked us the supporting Wild birds Unlimited and requested we encourage visitors to visit its ABNC location in order to help it meet its expenses. Helen also reminded everyone to check the volunteer box in the breakroom and to not park in the staff parking lot. Also, volunteers who drink the bottled water are asked to contribute to its cost. The meeting was adjourned.

Respectful submitted,
Patsy Cashion, Secretary

COMMENTS FROM THE CHAIR

Thank you to all of you who have called to let me know they have logged their hours. I appreciate that it is difficult for you to get to the logbook when you are doing stewardship, working at the farm, or at the entry pavilion. Just keep track of your hours and log them once a month or every other month.

There have been some complaints about difficulty finding the logbook. If the logbook is moved from its present location in the break room, there will be a note on the cabinet above where it is now and which will indicate the new location. I hope this makes it easier for all of you.

Helen Burton

UPCOMING VOLUNTEER OPPORTUNITIES

Birthdays Parties

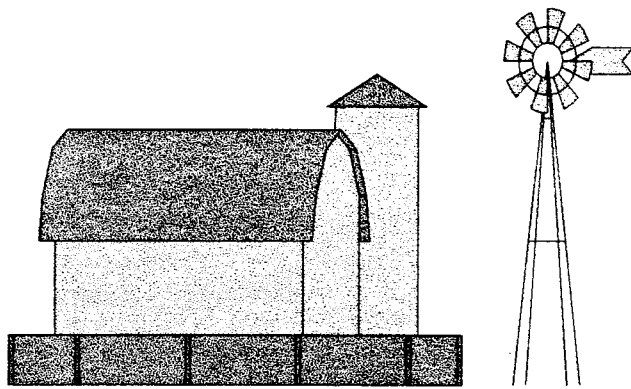
- ❖ March 7, Pond Pals. 10 - 12 noon. (Pond presentation from 10:15-11:00)
- ❖ March 8, Reptiles. 2 - 4 pm. (Reptile presentation from 2:15-3:00)

Girl Scout Badge Workshops:

- ❖ March 14, Water Wonders. 9:45 - 3:00 pm
- ❖ March 28, Water Wonders. 9:45 - 3:00 pm
- ❖ April 25, Toymaker. 9:45 - 3:00 pm

Cleaning the Farmhouse

Any time, especially on Fridays to prepare for the weekend. This involves dusting the furniture, sweeping inside and the on the porch and making sure everything visible is period-appropriate.



DOWN ON THE FARM

April 4

12:00 - 5:00 pm

This first-time, special event is being planned in cooperation with the Houston Livestock Show and Rodeo, and the Bay Area Weavers and Spinners. There will be demonstrations of weaving, carding, spinning, sheering, milking, horse shoeing, rope making, butter making, quilting, carpentry, and wood stove cooking. Highlights will include presentations on Texas history, singing cowboys, 19th-century games, and an authentic buckboard ride for the children. Hot dogs will be sold, but you will need to bring your own beverages. Please wear your khaki shirts or period clothes.

Please contact Polly Swerdlin if you would like to help with demos or Becky Brignac for information about some of the other jobs which need to be done. Hours worked should be logged in the event category.

STEWARDSHIP HIGHLIGHTS

The combination of great weekend weather and a terrific turnout by our volunteers have resulted in another month of solid accomplishments in the stewardship area. Activities have included: prairie "black-line" burns; transportation of over 70 Christmas trees via the "Bayou Ranger" to their final resting place in one of our marsh restoration projects; building shelves in the farmhouse for a new office; ridding the bayou of water hyacinths and assorted flotsam and jetsam via a canoe brigade; boardwalk repairs on the Martyn Trail; and planting cypress trees around May's Pond. We're hoping that our good luck and great performance continue as we move into the spring!

Our big building project for the year - the new and improved equipment shed - is moving along toward construction, where the help of our volunteer "handypersons" will be critical to its success. We've been informed that the City of Pasadena has issued our building permit, so we're ready to mobilize. The first activity will be setting pilings, after which the carpentry phase will begin. Joe Clem and Jim Edwards will coordinate this important addition to our physical plant. We'll let y'all know when it's time to come out and lend a hand!

Chuck Snyder

GIANT SWALLOW TAILS

Two years ago I came upon several sprouted lemon and grapefruit seeds. I planted them, and this year I have two lemon trees and four grapefruit trees, each about 15" tall.

Last fall we were away for several weeks and returned to find that several of my citrus trees were defoliated. As I investigated I saw a nasty caterpillar. I was ready to step on it. It was ruining my trees!! I quickly realized that stepping on it was not the answer. After all I am a Nature Center Volunteer!! They might revoke my nametag! Instead, I got out John & Gloria Tveten's *Butterflies of Houston* and voila, there it was! Description: "looks like a bird dropping and when harassed it extends red osmeterium." Exactly! The munching culprit was a giant swallowtail. By the first week in November the caterpillar seemed to be gone. Surprise, it had formed a chrysalis on the side of a pot. The Tvetens described the chrysalis as a small twig suspended at an angle with two filaments. Later I observed a second chrysalis on the brick wall of the house. As spring follows winter, I will watch for the metamorphosis that will happen. Ruby Dilgren tells me that if I catch the event, I may be able to feed them sugar water from the palm of my hand as they wait for their wings to dry. Stay tuned, I'll tell you all about it. Meanwhile, to insure their presence this summer, I shall provide lantana and buddleia. The most amazing part of this entire episode is that citrus trees are a favorite of the caterpillar, but my 6 trees are located in an atrium. The plants are not visible, so only the aroma attracted these frail creatures.

Barb Hill



ABNC GARDEN TOUR

By the time you read this, the ground hog will have forecast the timing of spring's arrival. The ABNC garden committee already knows that spring is around the proverbial corner and is busy planning the 4th Annual Garden Tour. 8 backyards in the area will be featured. This year's event will be Saturday, April 25 from 10 - 4 and Sunday, April 26 from 1 - 5. Rough calculations for 2-hour shifts indicate that we will need EIGHTY people. We want this event to be associated with ABNC as well as the local garden clubs, so how about it? Join the fun; sign up for lots of hours. Please call me if you have any questions.

Barb Hill (281)488-2653

IT'S A WRAP

Volunteers did an outstanding job again this year by gift wrapping books at our local Barnes and Noble store during the holidays. Barnes and Noble allow us to spread the word about Armand Bayou Nature Center and to keep all the tip money that we make. Thanks to Georgia Colyer, Jean Kruse, Christine Barrett, Chris LaChance, Mary Alice Trumble, Joe Evans, Don Shigekawa, Jane Bingel, Paula Kennedy, Ann Brinly, Kristen Knoedler, Mary Ann Tucker, Shirley Bishop, Pat Doerr, and Steve Doerr. Your hard work helped us reach out to the community and make \$138 for ABNC. Thank you.

Lynn Shigekawa
Development Director



SANDRA STOCK MEMORIAL

Sandra Stock was a volunteer at Armand Bayou Nature Center from the time of the first training in 1973 until her death in 1993. She was an excellent interpretive guide to both children and adults.

Sandra was our resident expert on botanical matters. She was educated as a biology teacher, but her first love was plants, and especially wildflowers. Sandra would walk the Nature Center grounds looking for flowers in bloom and post the findings for public information.

The volunteer organization began taking money for a memorial at the time of Sandra's death. It was to be in the form of an educational exhibit on wildflowers. The first committee, in 1993, was headed by Jennie Plunkett and included Phyllis Louderback. The committee members collected specimens in the area, and Jennie did all the pressings and compiled the list. The photographs have been done by Hanna Drago. Each specimen has an explanation written by Mary Barton. The colored pencil drawings are done by Mary Ann Tucker. Mary Ann's husband, Sheldon Tucker, did the actual building and installation of the exhibit.

If you would like to help with this continuing, constantly changing exhibit please call Mary Barton or Mary Ann Tucker.

Our sympathy is extended to Larry Kruse and his family on the recent death of his father.

PARKING REMINDER

Please remember to continue using the main parking lot unless you are unable to walk the boardwalk. Any time you have heavy items to bring, please feel free to drop them off and then return to the main lot to park. Please do not park along the service road or in the staff parking lot. Thanks.

PROPOSED 1998 BUDGET

INCOME

Cookbook Sales	100.00
Cookie Sales	700.00
Paper Recycling	250.00
Plant Sales	150.00
Savings Acct. Interest	10.00
<u>Total Budgeted Income</u>	\$1,210.00

EXPENDITURES

Contribution to ABNC (Includes previous unspent portions)	2,500.00
Administration/Supplies	50.00
Contingency	30.00
Entertainment/Refreshments	50.00
Cards/Gifts/Flowers	50.00
Postage	350.00
Volunteer Recognition	100.00
Scholarship (2 Summer Eco Camps)	300.00
Memorial Funds (Memorial Funds received previously)	407.25

Total Budgeted Expenditures \$3,837.25

Present Assets	4,353.79
Proposed Income	+1,210.00
Subtotal	5,563.79
Proposed Expenditures	-3,837.25
Surplus	\$1,726.54

Environmental Notebook

Air Pollution

By Lou Wheatcraft

In this article, I will continue the discussion on Air Pollution focusing on the 1990 Clean Air Act Amendments (CAAA) which seek to address the most conspicuous deficiencies in the previous air quality control regulations.

The CAAA of 1990 introduced sweeping changes in the federal approach to air quality management, redirecting the entire scope of federal regulations with respect to the six criteria pollutants, toxic air pollutants, and global issues including ozone depletion and acid rain. As far as the six criteria pollutants, the CAAA addressed the non-attainment of the federal air-quality standards in more than 50 cities (including Houston) setting timetables for percentage reductions in emissions over a period of 20 years.

The 1990 amendments grafted new regulatory requirements and mechanisms onto the framework of earlier legislation, resulting in a law, which is highly detailed and very complex. The 1990 amendments are subdivided into titles and subtitles that regulate on the basis of many criteria:

- class of polluter (large vs. small businesses, public vs. private entities, new vs. old sources, mobile vs. stationary sources);
- pollution characteristics (chemical vs. physical);
- existence of environmental phenomena (acid rain, greenhouse effect, ozone depletion, carcinogenic gases); and
- availability of pollution-control technologies.

There are 11 major titles (or sections) of the CAAA:

- Title I: Attainment & Maintenance of the National Ambient Air Quality Standards (NAAQSs)
- Title II: Mobile Source Provisions
- Title III: Hazardous Air Pollutants
- Title IV: Acid Deposition Program
- Title V: Permits
- Title VI: Stratospheric Ozone Protection
- Title VII: Enforcement Provisions
- Title VIII: Miscellaneous
- Title IX: Clean Air Research
- Title X: Disadvantaged Business concerns
- Title XI: Clean Air Employment Transition Assistance

For the rest of this article I will provide an overview of the major titles. Next month I will go into more detail into Title I, as that is the title that you will be hearing more and more about as Houston tries to meet the requirements of the 1990 CAAA and gain attainment for ozone.

Title I focuses on attainment & maintenance of the National Ambient Air Quality Standards (NAAQSs). Remember the NAAQS have been defined for six of the most prevalent air pollutants, known as criteria pollutants: carbon monoxide, nitrogen oxides, lead, sulfur dioxide, ozone, and particulates. When a region fails to meet one or more of the standards for these six criteria pollutants, it is considered a nonattainment area. Over 50 US cities are nonattainment areas at various levels (marginal, moderate, serious, severe, and extreme.) For ozone, Dallas is classified as "moderate" nonattainment, Beaumont & El Paso are classified as "serious", and Houston is classified as "severe" nonattainment. The only city to be classified "extreme" was Los Angeles. There are different rules for each classification and a different timetable for coming into attainment. For example Houston as a severe area, has until 2005 to come into attainment. I will go into this in more detail next month.

Title II deals with Mobile Source Provisions. Transportation emissions by light-duty and heavy-duty vehicles and trucks are among the most significant contributors to air pollutants. Title II details requirements for all aspects of new regulation over mobile source emissions. These relate to both emission standards as well as the fuels used in those programs and vehicles. These include tailpipe emission standards as well as requirements for fuel and fuel compositions.

Cars must be able to meet standards for the initial 50,000 miles of travel and slightly greater levels at the 100,000-mile mark. Tailpipe standards are estimated to reduce hydrocarbons about 40% and nitrogen oxides by about 60%. This is why you have to have emissions testing on your vehicles. Also addressed are particulate emissions for urban buses, evaporative emissions control, vapor recovery systems, and computerized diagnostic systems.

Fuels are also addressed. Title II specifically looks at fuels and fuel composition to help attain ambient air standards. The sulfur content of diesel fuels had to be significantly reduced and all motor vehicle gasolines must be totally lead free by Jan. 1996. Reformulated and oxygenated fuels were required for the top nine ozone nonattainment areas (including Houston). Fleet vehicles (10 or more) in the serious, severe and extreme nonattainment areas for ozone must also convert to "clean fuels". Beginning this year, 30% of all new fleet vehicle purchases must use "clean fuels."

Finally, requirements for low-emitting vehicle (LEV) standards were defined, as were ultra-low emission vehicles (ULEVs) and zero emission vehicles (ZEV).

Title III deals Hazardous Air Pollutants (HAPs). HAPs are all those other toxic air pollutants that are mostly the result of manufacturing. Before 1990 there were only 8 HAPS with standards defined for 7 of these. Title II of the 1990 CAAA set technology-based standards for 189 hazardous substances designated by Congress. Emitters of any of the 189 HAPs will be required to install special equipment with the goal of reducing toxic air emissions by 75% by the year 2000. Under the newer air toxics program, major emitters of HAPS must obtain a permit.

Major chemical plants and petroleum refineries are affected by this law as are gasoline stations, dry cleaners, paint shops, etc. While what chemicals are put on the list are supposed to be health based, it appears there are a lot of politics involved in that some chemicals are removed from the list as well as others added.

Title IV deals with acid deposition program. The stated purpose of Title IV is to reduce the annual emissions of Sulfur Dioxide (precursor to acid rain) by 10 million tons per year from 1980 levels. The provisions of this title apply to fossil fuel fired electric utilities boilers in specified states.

Title V deals with permits. The goal of Title V is for states to issue federally-enforceable operation permits to major stationary sources of air pollution. Major sources are defined according to the ozone nonattainment status by geographic areas within each state as well as HAPS emissions.

Title VI deals with stratospheric ozone protection. In order to address concerns for protection of stratospheric ozone (the ozone layer that protects us from ultraviolet rays), certain compounds have been determined to damage the protective ozone layer. Title VI sets up a series of regulations to phase out all emissions of such substances. In compliance with the Montreal protocol, the phase out had to be complete by the end of 1995. Recycling and recapture requirements were also defined.

Title VII deals with enforcement provisions. Title VII modernizes, updates, and increases enforcement provisions of the Act. Title VII enforcement provides a much more severe set of penalties for noncompliance with the CAA. In addition to violations and fines, the CAA institutes new environmental crimes and raises to a felony a knowing violation of any provisions of the act, in addition to penalties for failure to comply with the permit requirements of Title V.

The other 4 titles are not as important and I will not bore you any more with their details.

Next month more exciting details on Title I and its implications for the Houston area.

Sources: "Introduction to Environmental Law and Policy - Protecting the Environment Through Law", by C. M. Valente and W. D. Valente, West Publishing Company, 1995 and "Principles of Air Quality Management", by Roger D. Griffin, Lewis Publishers.

VOLUNTEER DUTY SCHEDULE

In an attempt to take some of the load off of the Coordinators, and to help cut down on our "no show" rate, a list of the persons who have volunteered for various assignments will be printed in the Bayou Foliage each month. If you are scheduled for a particular duty and you are unable to attend, please use this schedule to try to find your own substitute. You may be able to trade weekends, or swap a Saturday for a Sunday with someone who has the same duty another time during the month. If you do trade, please be sure to call the appropriate coordinator and the ABNC desk to inform them.

DATE	11:00 TRAIL	2:00 TRAIL	INFO. SERVICES	FARM INTER.	FARM DEMO	NAT. HISTORY DEMO
Sun. 3/1	---	John Siptak	Kathy Appleby	Marsha Goss	Jim Callan (Farm Equipment)	Brad Hallmark (Dragonflies)
Sat. 3/7	James Crabb	Ramon McKinney	Christine Ribeiro	Jane Bingel	Larry Veale (Indian Crafts)	Pat Doerr (Owls)
Sun. 3/8	---	Melanie Weisman	Georgia Colyer	Polly Swerdlin	Mary Ann Tucker (Basket Weaving)	Joe Bryan (Sea Shells)
Sat. 3/14	Jane Bingel	Eldine Owens	Barb Hill	Janet Miller	Chris Bingham (Cheese Making)	Ruby Dilgren (Alligators)
Sun. 3/15	---	Martha Hood	Patsy Cashion	Paula Thorson	Ed Adams (Wood Stove Biscuits)	Polly Swerdlin (Turtles)
Sat. 3/21	Louise Peck	Ann Tincher	Hanna Drago	Stephania & Paul Rogers	Jane Bingel (Cheese)	Jim Crabb (Mushrooms)
Sun. 3/22	---	Patty Gill	Merle Bunde	Eleanor Stanley	Emily Egan (Weaving)	Eric Duran (Amphibians of Texas)
Sat. 3/28	Merle Bunde	Chris Santiago	Joan Shack	Susan Williams	Paul and Stephanina Rogers (Rope Making)	Linda & Andrew Hamlett (Purple Martins)
Sun 3/29	---	Christine Ribeiro	Martha Hood	Janet Miller	Susan Hesley (Yarn Dolls)	Sue Manley (Mammals)

1998 VOLUNTEER BOARD

	Home	Office	Home	Office
Helen Burton	Chair	281-474-7133	Hanna Drago	Admissions 281-326-4149
Jean Kruse	Vice Chair	281-486-0787	Polly Swerdlin	Weekend Demos 281-488-8193
Patsy Cashion	Secretary	281-485-2681	Cris Santiago	Weekend Trail 281-471-0979
Georgia Colyer	Treasurer	281-996-7888	Penny Woodward	Weekday Farm 281-485-4041
Chuck Snyder	Stewardship	281-480-1550	Ed Adams	Weekday Trail 713-946-2754
Ruby Dilgren	Interpretation	281-488-1727	Susan Williams	Newsletter 281-487-3033
Michael Vu	Outreach	281-471-1114		

email: sfwilliams@pdq.net

1998 VOLUNTEER SURVEY CONTINUING EDUCATION

Will you please take a minute or two to look over the topics below and indicate which are of interest to you. This will help us in scheduling continuing education classes.

Bats	Birds	Spinning & Weaving
Indians of ABNC	Wildlife Mgmt.	History of ABNC
Farm Tool Class	Wildflowers	Wildlife Habitat
Animal Handling	Tree & Plant ID	Plants at ABNC
Prairie Plants	Mushrooms	Dragonflies
Insects	Alligators	

Other _____

When would you like to see classes scheduled?

Saturday AM PM Sunday PM

**PLEASE LEAVE THE COMPLETED FORM IN THE VOLUNTEER BOARD MAILBOX IN
THE BREAK ROOM. THANK YOU!**
