# EDUCATIONAL INITIATIVES RELATED TO THE EDWARDS AQUIFER HABITAT CONSERVATION PLAN (EAHCP) Updated August 06, 2013

#### **School Focused Programs**

## City of San Marcos:

Working with university to establish a HCP Lecture series at Texas State University (TSU).

### City of New Braunfels (NB):

- Currently working on setting up a science curriculum (in local schools) to incorporate HCP / aquifer / water quality into their science program (NBISD, CISD).
- Setting up "story time" and "roots / shoots" (environmental talks with small children on endangered species and water quality) every month or so at MAIN NB Library and NB Westside Community Center.
- Setting up an "environmental / water quality" class at NB Westside Community Center (once a month) to educate public on local environmental issues (water based).
- Already contacted RAVENSTAR to set up a workshop/class (once a month or so) on Saturdays for children to interact/learn about endangered species and water quality issues.
- Possibly teaching a workshop or having environmental brochures offered at local community college (Central Texas Technology Center), that is a satellite campus of San Antonio College.

#### Edwards Aquifer Authority:

- Doc Edwards Presentations—on going
- Speakers Bureau—on going
- Pre K—Secondary Education presentations, career days, and school Earth Day events—on going
- Media Workshops and Outreach—on going
- Free educational materials are also available for order or for download from the EAA website at http://eaadevelopment.com/educators/free-materials-and-resources

#### San Antonio Water System:

- Educational Programming focusing on the importance of water in the community through SAWS curriculum, activities and service-learning projects – all of which are free of charge to educators and students from elementary, middle, and high schools.
- SAWS also offers free virtual education resources, training, and grants for school activities
  relating to water, water conservation, and environmental education. SAWS Education efforts
  are funded by the ratepayers of San Antonio and surrounding communities served by SAWS and
  are open to any school or resident served by SAWS. For more information, visit
  <a href="http://www.saws.org/Education/">http://www.saws.org/Education/</a>.

## Guadalupe-Blanco River Authority:

- GBRA is launching a new middle school program, called Waters to the Sea, Guadalupe River. www.cgee.hamline.edu/WTS-Guadalupe
- Teaching Trainings scheduled for August-October throughout the river basin from Kerr County to the Bay.
- School Presentations at/for:

- San Marcos Baptist Academy--80 students
- o Bowie Elementary--80 students
- Clear Springs Elementary--80 students
- Memorial Elementary--80 students
- Mendez Elementary--100 students
- Negley Elementary --100 students
- o Bill Brown Elementary -- 100 students
- Pfluger Elementary--100 students
- Crockett Elementary--100 students
- Kyle Elementary--40 students
- Science Hall Elementary--120 students
- Clear Springs Elementary--100 students
- o Fuentes Elementary--120 students
- Camino Real Elementary--120 students
- Schlather Intermediate School--400 students
- o Startzville Elementary--50 students
- Klein Road--80 students
- Memorial Elementary--85 students
- o Hemphill Elementary--110 students
- County Line--85 students
- Seele Elementary--80 students
- Crockett Elementary--80 students
- Lone Star Elementary--100 students
- Lamar Elementary--80 students
- Wilder Intermediate--105 students (on three separate occasions)

## Texas Parks and Wildlife Department:

Article about the EAHCP will be included in Aquatic Science Education Guides For Texas'
students and teachers for use by middle through high school students and educators. The guides
will be made available to teachers and students free of charge online through the websites of
Texas Parks and Wildlife Department (TPWD), Texas State University's The Meadows Center for
Water and the Environment, and Texas A&M University-Corpus Christi's Harte Research Institute
for Gulf of Mexico Studies.

#### **Festivals**

### Edwards Aquifer Authority:

- TCEQ Environmental Summit January 2013
- Hondo South Texas Irrigation Conference January 2013
- Leon Valley Earthwise Living Day February 2013
- San Antonio Rodeo's Education Pavillion mobile cave setup February 2013
- Confluence February 2013
- Get Outdoors March 2013
- Spring Bloom March 2013
- San Antonio Earth Day April 2013
- San Marcos Green Living Showcase May 2013
- Siclovia, June 2013

- Juneteenth June 2013
- River Awareness Day, August 3
- BatLoco, August 13
- Solar Fest, October 12, 2013

# City of San Marcos:

- Hosted a River Awareness Day in City Park booths, food and fun for public awareness of river issues and the HCP solutions – Aug 3<sup>RD</sup> 9 -10p
- Hosting Texas wild-rice (TWR) festival in April for public education of TWR and the HCP. This will be a 2 day event.
- Dual recycling/HCP presentation tour of all city public events park movies, music in the park, etc.

## Texas Parks and Wildlife Department:

• January 14, 2013 TCEQ Environmental Summit at Schertz

• March 28, 2013 Water Day at the Capitol

#### San Marcos River Foundation:

- River Awareness Festival: where wild rice was featured, lots of workshops and talks, plant walks
  along the river to identify native plants, and fun activities for kids like arts and crafts, learning
  how to juggle, "dance like the flowing wild rice", etc.
- Distributed TWR info at various educational booths in the past year at assorted festivals and events

## Guadalupe-Blanco River Authority

- Earth Day Seguin
- Earth Day San Marcos
- Earth Day Sattler

#### **Presentations**

## Edwards Aquifer Authority:

- National Association of Engineers (November 2012)
- Friends of Landa Park (March 2013)
- City of San Marcos Open House (March 2013)
- National Groundwater Association (March 2013)
- Guadalupe Basin Coalition Monthly Updates at meetings
- Region L Quarterly Updates at Meetings
- EAA Road Show
- EAA 101 Presentations
- Doc Edwards Presentations

#### City of New Braunfels:

- Creation of talking points on the initiative for public speakers.
- Parks Board presentation
- City University presentations
- NB 101 presentations

- NB Chamber transportation committee updates.
- TPWA youth presentation.
- Employee meetings and updates throughout the department.
- Presentations about recycling and proper waste disposal to students and young children.

# City of San Marcos (SM):

- On-going opportunities for presentations to community groups Lion's Club; Kiwanis, Chamber
  of Commerce etc university classes; city commission and boards city council, parks advisory
  board, P&Z. Monthly walk & talks with TSU outdoor rec class.
- Presentations at all SMCISD elementary schools.
- SM Nature Center (SMNC) has included a session on the HCP in all summer camps and education stations at all SMNC tours.

## Texas Parks and Wildlife Department:

- October 26, 2012 Texas Master Naturalist State Conference.
- February 21, 2013 Master Naturalist's Chapter in Rockdale.
- February 27, 2013 State Parks Region 2 Interpreters at Choke Canyon State Park.
- April 20, 2013 Angler Education Area Chief meeting at Texas Freshwater Fisheries Center.

## **Programs**

## City of San Marcos:

- Conservation Crew: 40 hours of education every week: 100 days of face to face education as our conservation crew walks and kayaks the river providing outreach to tuber, boaters, and recreationists on the banks of the SMR.
- Developed an intern program to voluntarily work on unfunded HCP projects, recruit more interns and present to their university classes.
- Autumn and Spring river cleanups focus on HCP project locations.
- TDS is doing single stream recycling at schools and composting in the cafeteria.
- Bulky Waste Pick Up: Bulky/brush waste pick up includes: furniture, appliances & yard waste.
- Brush Drop Off: Material accepted: tree stumps, branches, leaves and grass clippings- do not bag.
- TDS Landfill Brush Drop Off: Up to 5 cubic yards of branches or bags of leaves are accepted one day a month.
- Pharmaceutical Drop Off: Prescription Medications: Drop box kiosk available 24/7.
- Household Hazardous Waste: Sample of items accepted: drain cleaners, degreasers, paints, fluorescent lights, CFL bulbs, cell phones, batteries, weed killers, used oil, oil filters, and medical needles: Tuesdays & Fridays: noon to 3:30pm.
- Green Guy Recycling: San Marcos residents free drop (with utility bill): A/C units, refrigerators, CRT computer monitors (2/family), electronics, tires (5 passenger vehicle tires annually): Buy Back Office Hours: Mon-Fri 9am-5pm & Sat 9am-2pm: Recycling drop off Center: 24/7.
- Neighborhood Clean Ups: Items Accepted: Bulky waste, Recycling (metal & tires), HHW: 6 per year (3-Spring & 3-Fall) around the community (8am-1pm).
- Keep San Marcos Beautiful: Adopt-A-Spot and Adopt-A-Street: 2 year agreement; clean adopted spot at least 4 times each year; schedule clean up with KSMB coordinator 2 weeks in advance: Graffiti removal: contact coordinator with problem sites: Beautification: River clean ups; Bobcat Build sites; Texas Trash Off.

• Developed a partnership between the City Park Rangers and the University Police to enforce TWR protection.

• Future – obtain Park Rangers that educate the public and enforce environmental regulations on the river.

## City of New Braunfels:

- Bulky Goods Drop-Off (to reduce/deter illegal dumping) 4 times a year.
- Household Hazardous Waste drop-off twice a year, safe disposal of HHW.
- Electronics Recycling drop-off event once this year.
- "Don't Ruin our Rivers" funnel given out at HHW events, to discourage waste in waterways and encourage recycling used oil and other automotive liquids.
- List of alternatives to chemicals recipes (homemade cleaners and pest control methods) given out to HHW events and BGD event participants.
- Wraps on River litter containers encouraging recycling (rather than just pitching it on the ground).
- NBU's MedSafe promote this and NBPD staffs it, as an efforts to keep pharmaceuticals out of water, and disposed of properly.
- Promoted / Distributed Fish and Wildlife Service (posters) to NB Main Library and Westside Community center (discussing non-native fish species and endangered species that live in Comal springs).
- Distributed EAA brochures on Aquifer education and endangered species workbooks and brochures (children's center).
- Parks "HCP handout" that is given to the Park Rangers listing HCP projects and endangered species in area, with contact info and short info summary.
- Currently in process of acquiring various State of Texas (environmental / water) handouts and brochures (TCEQ, TWDB, TWPD, etc..) and have these hand outs at local governmental agencies, local non-profit agencies (Lions club, Knights of Columbus, etc..) as well as distribute to places like HOME DEPOT, local nurseries (plants), Pet shops, tractor supply stores, etc.....
- Working on promoting internship recruiting at all local S.A. / AUSTIN universities for working in / around the HCP program for City of New Braunfels and City of San Marcos (thus expanding the "education" and awareness of the program to local Universities and "environmental" departments. The potential to expand the knowledge, awareness and interest for the HCP program utilizing local academia and interns, is huge.

## San Antonio Water System:

 The Rain to Drain Experience is an engaging community field trip for adults that traces the urban water cycle from falling raindrops to the Water Recycling Centers and back through innovative reuse technologies.

## Edwards Aquifer Authority:

- Discover the Edwards Aquifer: A Comal Springs & River Workbook—community outreach
  program that combines art and empirical observation to give a personal, discovery-based
  connection to the aquifer and its species through the springs, river, and eco-system. Developed
  and launched in 2011, the program continues to reach students and their families through
  workshops at Landa Park, the New Braunfels Public Library, and other local partners.
- Discover the Edwards Aquifer: A San Marcos River workbook—the second workbook in the discovery-based series is currently in production and is scheduled to be launched at the

- beginning of 2014. Like the Comal Springs & River workbook, events and workshops will be scheduled throughout the local area with the support of community partners.
- Development, production, and distribution of EAHCP 2013 calendar with introductions and simple overviews of the program from the Executive Director and other partners.

## Signage

#### City of San Marcos:

- Extensive signage both in and along the river from Spring Lake to IH35 kiosks, fence signs, inriver signs in Sewell Park, Bicentennial with kiosks under construction for City Park, San Marcos Plaza, Veramendi, Children's Park, Rio Vista, Wildlife Annex and Ramon Lucio.
- Every Scientific Study Area has a sign to identify its location.
- HCP posters for pet stores focusing on invasive spp issues.
- Recreation information at hotels/restaurants, bed and breakfast facilities, Chamber of Commerce, Visitor's Center.

# City of New Braunfels:

- Created four HCP project signs which are installed in Landa Park.
- Created a QR code which links to the EAHCP web pages.
- Edwards Aquifer / Endangered species kiosk (Comal springs-spring run 1)- 3 sided that endangered species, aquifer structure/protecting aquifer and protecting the aquifer.
- Multiple signs in Park (near Spring Run 3) that discuss non-invasive species (e.g. nutria), and native waterfowl in / around park area.
- Parks office (front) has large 3 section sign that discusses river systems, life at Comal springs and aquifer structure.

## Edwards Aquifer Authority

 Development of design standards for a unified branded EAHCP image—created style guide and templates for program partners that included an image bank of photos and graphics to be used consistently promoting the EAHCP and educating the public on its programs throughout the region.

#### Social Media

#### Edwards Aquifer Authority:

- Social Media (Facebook, YouTube, etc.) reaching 22,086 users in 2012.
- EAA Website viewed by 50,462 unique users in 2012.
- Development and production of five EAHCP videos highlighting the process, budgets, programs, and outreach; further production and update to main EAHCP video to come.
- Development, production, and continued maintenance of the EAHCP website.

#### City of San Marcos:

• Developing a twitter account for invasive species education.

# City of New Braunfels:

 Created a webpage dedicated to the projects with direct links back to the EAHCP pages for details on each project at http://www.nbtexas.org/hcp.

Inclusion of the projects in the City Project Spotlight publication available via the website.

#### **Traditional Media**

## City of San Marcos:

- Press releases going out every other week keeping the public up to date on the projects.
- Spot on City and University cable channels that is updated along with the press releases every other week.
- City calendar updates for education events.
- HCP projects covered by the City newsletter.
- Video loop under production using an aerial tour of the river with Morgan Freeman narrating all HCP projects.
- Koozies, t-shirts, non-disposable bags, bumper stickers all distributed to public at the all possible public events.

## City of New Braunfels:

- Created spot on cable channel 21 about the initiative.
- Coordinated media contact (radio/newspaper) with resultant coverage of the HCP initiative.
- Published article in the internal City newsletter.
- Quarterly Newsletter articles:
  - Spring 2013 article encouraging residents to keep rivers clean.
  - Summer 2013 (coming soon!) article about habitat conservation efforts as part of HCP in New Braunfels.

## San Marcos River Foundation:

- Weekly email newsletter that mentions HCP work as often as possible, explaining the steps that are visible right now to residents of the SM area, in the river etc.
- Fundraising campaign online for Yakona the film about the San Marcos River that some locals
  filmed and are now putting the final touches on, to send to Sundance and other premier film
  festivals around the country, in the next month or two. It has lots of underwater footage and it
  is a "pure cinema" category of documentary, so it does not have narration or words, just music
  and beautiful footage. It kind of tells the history of the river and has lots of beautiful footage of
  wild rice.