

THE

MODERATOR



B R E A C T O R M U S E U M A S S O C I A T I O N

April—June

Vol. 18, Issue No. 2

Spring 2012

From The Control Room

by Maynard Plahuta, BRMA President

By the time this goes to press, the 2012 tour season will have started. The big news this season is that our long desired hope to have B Reactor tours available to youth under age eighteen has finally come to fruition. This is a major milestone BRMA has advocated for over a decade. Bob Horgos has more details about this later in this edition of *The Moderator*.

The funding for the production of the 100B-Area and the graphite models is another breakthrough this quarter. BRMA owes much appreciation and a “big thank you” for the significant contribution of member Clay Perkins toward this achievement. Clay offered a \$25,000 challenge grant to complete the models. To meet that challenge, member Hank Kosmata initiated action to request a grant funded by the City of Richland’s hotel/motel tax fund program. These funds are derived entirely from the tax that occupants pay the hotels and motels while staying at these businesses in Richland. Thus, Richland citizens are not taxed (other than if they stay at a Richland hotel or motel) for any awards given via the hotel/motel tax fund program.

Hank, with the assistance of Atomic Heritage Foundation (AHF) President Cindy Kelly, submitted the grant application for \$25,000. Hank presented the application to the hotel/motel tax program committee which recommended approval to the Richland City Council. Subsequently, the Council approved the full \$25,000. Thanks, Hank and Cindy, for your great and productive effort! With funds from Clay, the Richland grant, and the earlier Murdock grant provided to AHF, BRMA now has sufficient funds to produce the two models as well as added vignettes, kiosk(s) to be located at the cask cars and locomotives, some oral histories, etc.

At this point bids for the models are due to Cindy Kelly by April 23rd. We have two well qualified bidders. Cindy will be working with BRMA to evaluate the bids and

negotiate the contracts, which will be administered by AHF. Gene Woodruff and Burt Pierard will assist with the graphite model, and Del Ballard and Hank Kosmata will assist with the 100B-Area model. No doubt, these two models will enhance the tours and significantly help tell the whole story. It is also noted that National Parks Service employees have strongly endorsed the production of the models – it appears we have all bases covered.

To this date it appears limited progress has been made in the U.S. Congress to establish a Manhattan Project National Historic Park. We understand, but have not seen, the draft Senate bill which was provided to DOE for technical comment. We understand the bill does not include the T separations plant or the pre-Hanford facilities such as the Bruggemann warehouse. Certain facilities at Los Alamos and Oak Ridge also have apparently been excluded. Senator Cantwell’s staff has indicated she will push hard in her committee to have our wanted facilities included as well as the ten principal elements identified for inclusion by all three locations. Likewise, Congressman Hastings’ staff says it will work to the same end with the house bill which apparently is not yet drafted. It is noted that this status could change any day, or on the other hand, languish longer.

We are pleased the manikins of Enrico Fermi and Leona Woods-Marshall formerly displayed at the Smithsonian Museum in Washington D. C. have arrived. As mentioned in an earlier *Moderator* issue, the manikins are 80% life size. They look like realistic big dolls (see pictures on P. 6). The manikins are currently located at the B Reactor Project Office tour headquarters. Hopefully they can be relocated to B Reactor soon.

I want to personally express a long overdue thanks to Ellen Low, Director of CREHST, for the hospitality and

(Continued on page 2)

www.b-reactor.org

The B Reactor Museum Assn. meets on the 2nd Monday of each month at 7 p.m. in the CREHST Museum Auditorium, 95 Lee Blvd., Richland. **Next meeting is April 9.**

Dupus Boomer—by Dick Donnell

From The Control Room (cont'd)

(Continued from page 1)

use of the CREHST facility for the monthly BRMA meetings. I also thank Connie Estep for faithfully opening the door each month and remaining to the bitter end to close up. Thanks Connie!

I'm sure all of you who attended our March meeting were very pleased to hear our guest Lisa Toomey, CEO of the Hanford Reach Interpretive Center (the Reach), give an update of the Reach's plans and efforts going forth under her direction and that of essentially the new Richland Public Facilities District Board. Thanks, Lisa, for your informative presentation. BRMA looks forward to working with Lisa and others on sharing common goals of CREHST, the Reach, and BRMA. It is by working as a team that we can accomplish our common goals for the benefit for our community.

I believe the above summarizes BRMA activities during the first quarter of 2012. I imagine activity will expand as the new tour season begins and the production of the models gets in high gear. It will be great to learn the impressions of students and other youth touring with their parent or guardian. I'm optimistic we will continue to see progress, although sometimes not as fast as we would like.

Membership Report

By Burt Pierard, Membership Chair

2012 Membership Renewals are due. We are running about 10% ahead of last year's Membership Renewals. We are presently at 66 paid 2012 Memberships (compared to 60 at this time last year).



Contributed by
Connie Estep,
CREHST

★
★ **BRMA Charitable Contributors** ★
★
★ This is a Public Acknowledgement of the generous ★
★ cash contributions to BRMA. The following list ★
★ covers the period January thru March 2012. ★
★ **Elayne Brower, Tom R. Chikalla, Fred Dyda** ★
★ **James A. Englund, William L. Galligan,** ★
★ **Maureen Hamilton, William Porath, Richard** ★
★ **Romanelli, Everett Weakley** ★
★ **Thank You!** ★
★

This includes three new members and eight renewals by members who forgot last year. To send in your Renewal, the Form is on this page to Clip or Print.



2012 Renewal and New Member Application

Name: _____ Date: _____

Address: _____ City: _____ State: ____ Zip: _____

Phone: (h): (____) _____ (w): (____) _____ MSIN address: _____
(current Hanford employees)

E-mail: _____

Individual (\$20) or Senior (age 65+) or Student (\$10) and New or Renewal
 Group (\$25 up to 100 members; please add \$10 for each additional 100 members)

For Group Membership, Official Representative: _____

Additional tax deductible contribution: \$ _____
(Tax ID # 94-3142387)

Total Enclosed: \$ _____
(Please make check out to BRMA)

Thank you; please mail this application with payment to:

B Reactor Museum Association
PO Box 1531
Richland, WA 99352

BRMA Recovers Variety Of B, D, And F Graphite Blocks

by Gene Woodruff, BRMA Graphite Committee

Feb 9, 2012, was field trial day for a graphite pointer and two retrievers. With this abbreviated crew, BRMA was permitted to recover the early B, D, F, graphite blocks from the mixed assemblage of remnant blocks machined for the nine Hanford reactors and finally collected in the field behind 105-B. (see the Spring 2011 *Moderator* for the pile inventory and plans for displaying some of the blocks in a model.)



The highly efficient retrievers on trial day were Nathan Wood, left, and Ruben Palomerez, right, with Grant Construction

Our original thought was to have a crew of BRMA volunteers extract the bars of interest but current DOE policy does not permit volunteer labor. Thanks to all of you who did volunteer. Though idled, be consoled in knowing you were spared exposure to a wet and drippy day in the far reaches of Hanford.

Our highly efficient retrievers on trial day were Nathan Wood, left, and Ruben Palomerez, right, in the top photo. They are with Grant Construction.

Kirk Christensen of MSA put the job on schedule and with the help of Kevin Haggerty, B - Area Supervisor, BRMA's pointer, Gene Woodruff, was welcomed aboard and introduced to the retriever crew. Apparently pointing does not qualify as labor or any pay scale under today's ground rules.

The retrieved bars were relocated onto four pallets: #1 for eventual use in the model, #2, K and N reactor blocks representing core design



BRMA pointer Gene Woodruff was welcomed to the retrieval effort and offered suggestions



evolution, #3, B, D, F tube layer blocks and #4, B, D, F filler layer blocks. The pails in the foreground contain safety balls, a potential source for souvenirs. Four aluminum process tubes were also set aside for souvenir or model applications.

Before the blocks are released off-site, they need a radiation survey and have been moved inside 105-B to dry out and eliminate possible self-shielding. Gary White, BRMA's Communications Director, has located an eventual storage space in Pasco through his connections at Basin Disposal Inc. Contrary to the name, a very safe and secure repository is assured there.

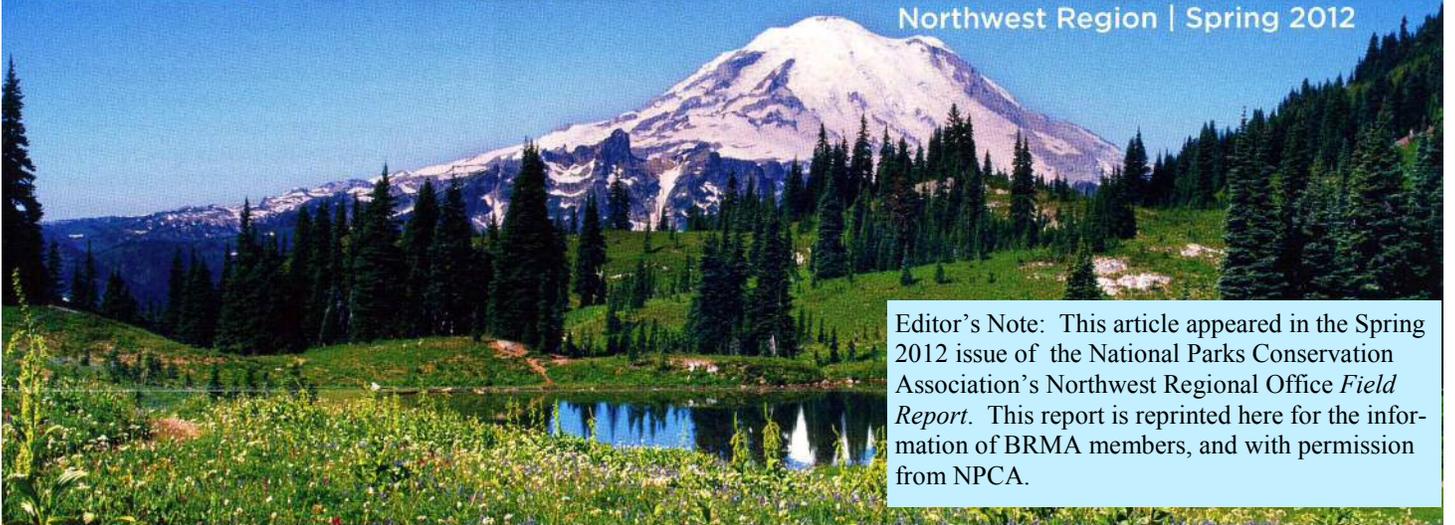
Negotiations on building the model are still in progress.

Retrieved graphite bars were relocated onto four pallets. The pails in the foreground contain components from the last ditch safety system.



FIELDREPORT

Northwest Region | Spring 2012



Editor's Note: This article appeared in the Spring 2012 issue of the National Parks Conservation Association's Northwest Regional Office *Field Report*. This report is reprinted here for the information of BRMA members, and with permission from NPCA.

Backpedalling in Time: Hanford B Reactor

In a time of budget austerity, park expansion sounds like a fantasy. National Park Service employees are already pinched—compelled to oversee America's natural and cultural treasures with less. At the same time, preserving America's historic and natural heritage for future generations galvanizes people of all political stripes. It's a mission that, even in tough times, can't be thrown in cold storage. National parks have a spiritual resonance, from the cathedral spires of the North Cascades to the concrete mass of the Hanford B Reactor.

Yes, the Hanford B Reactor.

While many of us elbow for expansion of North Cascades National Park or the conversion of Mount St. Helens to a national park, there are also smaller, meaningful initiatives that merit action. One of the most significant is the creation of a national historical park to commemorate the Manhattan Project.

The idea of a Manhattan Project National Historical Park takes a minute or two to digest. Atomic bombs are antithetical to pristine wild country. Nevertheless, the Manhattan Project and subsequent bombing of Hiroshima and Nagasaki were a watershed in 20th century history. The project mixed science, vision, and inspired engineering undergirded by the moral quandary of atomic weapons, civilian deaths, and the subsequent Cold War arms race.

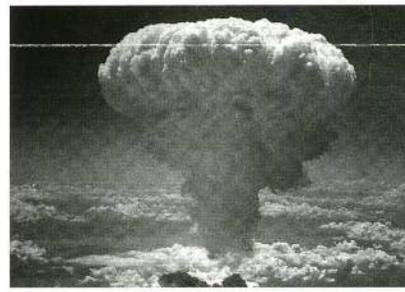
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Manhattan Project Sites National Historical Park

Washington State's Next National Park?

By David G. Graves

Nearly 70 years ago, Army Corps of Engineers Colonel Franklin T. Matthias, only 33 years old, was looking for a site to support a new construction project to be carried out by the DuPont Corporation. He needed an area with no public highway or railroad closer than 10 miles, no town with a population more than 1,000, an available water supply of at least 25,000 gallons per minute, and an electrical supply of at least 100,000 kilowatts. He looked at several sites in Tennessee, but it wasn't until he flew over the town of Hanford, Washington, with a population of 900, that he knew he had found the site.



The Hanford B Reactor was designed by Enrico Fermi and other scientists at the University of Chicago and constructed by the DuPont Corporation, which charged the government \$1 for the massive project. Starting in 1942, this endeavor employed more than 100,000 workers, who completed

construction of the world's first nuclear reactor in just one year.

Following the National Park Service's recommendation that Congress establish a new national park that tells the story of the Manhattan Project, our own Congressman Doc Hastings (R-WA) and Senator Jeff Bingaman (D-NM) are working together to propose legislation designating the Manhattan Project Sites National Historical Park. This park would encompass three project sites integral to the development of the first nuclear bomb. The National Historical Park would

include sites in Oak Ridge, Tennessee; Los Alamos, New Mexico; and the Hanford B Reactor site in Washington.

NPCA supports the designation of this new unit of the National Park Service because it would:

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Top: Wildflower Field and Mount Rainier, Washington. ©Lawrence Freytag/ISTOCKPHOTO **Above:** A giant column of dark smoke rises more than 20,000 feet into the air, after the second atomic bomb ever used in warfare explodes over the Japanese port and town of Nagasaki, on August 9, 1945. ©AP images

Manhattan Project

continued from cover

- Help the public understand the Manhattan Project in the context of World War II and present balanced viewpoints which would include divergent opinions on the bomb's significance;
- Give visitors insight into the continuing relevance of the atomic bomb to American and world history;
- Preserve the historic places that convey the human, social, and political reality, as other similar sites commemorate Japanese-American Internment, the Trail of Tears, and the assassinations of historic figures;
- Have minimal costs associated with it (the government already owns the land and historic Manhattan Project properties and the Department of Energy would save an estimated \$100 million by preserving the Manhattan Project properties—such as the famous B Reactor at Hanford, Washington—rather than destroying and disposing of them); and
- Stimulate local economies.

Maynard Plahuta, President of the B Reactor Museum Association, has been working with NPCA to advance the proposal for this new unit of the National Park System. Trained in business and contract administration focusing on engineering technology, Plahuta sees this as an important designation because the sites represent the entrance of a whole new era of world technology—the entrance of the atomic age. As he says, “The story helps tell the many technical breakthroughs conceived by brilliant minds, dedicated workers who completed work in record time, and the patriotic citizens of the Hanford, White Bluffs, and Richland communities who had to leave their homes and give up property. These are just some of the highlights of the Manhattan Project.”

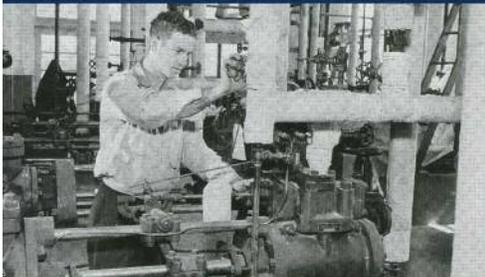
A fascination with history and his career with the U.S. Department of Energy (formerly the Atomic Energy Commission) led to his interest in this project. He states, “The Manhattan Project not only created advancements for the military; but also led to advancements in medicine, electrical energy generation, food preservation, and a number of other applications.”

Plahuta also believes that the National Park Service is the appropriate agency to tell the story of the Manhattan project. “I believe the Park will have and serve a significant educational role. It will help visitors achieve a greater knowledge, understanding, and appreciation of the importance of Manhattan Project history. . . . A visit to B Reactor, for example, will demonstrate the awesome enormity of the technical accomplishments achieved via the Project—other accomplishments include discoveries in physics, chemistry, and other sciences.” The B Reactor Museum Association’s support of the creation of the Manhattan Project National Historic Park is vital to the Park’s success.

The National Parks Second Century Commission has recommended creating parks that will reflect the diversity of the American experience as the National Park Service approaches its 100th birthday in 2016. A park presenting the story of the Manhattan Project is an important part of this experience.

The harnessing of atomic energy was a turning point in American and world history and continues to impact the world today. We should learn from our history—not turn away from it.

Backpedalling in Time: Hanford B Reactor



The new park will weave together the Manhattan project’s three planning and production sites: the Hanford B reactor in central Washington, the Oak Ridge Laboratory in Tennessee, and Los Alamos in New Mexico. Last fall, the National Park Service issued a special-resource study that recommended a national historical park to interpret the Manhattan Project’s rich, complex history.

At the time, National Park Service director Jon Jarvis observed, “Once a tightly guarded secret, the story of the atomic bomb’s creation needs to be shared with this and future generations. There is no better place to tell a story than where it happened, and that’s what national parks do.”

The current B Reactor museum features indefatigable volunteers, most of them Hanford veterans. Their knowledge of the engineering and B Reactor’s scale is

unmatched. Tour rules included no sandals or skirts and no one under 18 (let’s hope the age restriction gets quickly nixed.) Visitors don Day-Glo dosimeter arm bands that they can bring home as souvenirs.

To drive in by van and explore the reactor is to backpedal through time, the built-environment analogue to the awesome 195,000-acre Hanford Reach National Monument.

The building sits flat on the Columbia plateau desert and is the first, full-scale nuclear reactor in the world, constructed in just 13 months. NPCA’s Northwest Regional Leadership Council had a chance to tour last summer and visit with museum leaders, men and women who have been critical in preserving the facility and breathing life into the campaign to make it part of the National Park System.

The volunteer corps is the first to acknowledge that the National Park Service is better equipped to interpret the Manhattan Project’s broader historical narrative. In the 1940s, everything was compartmentalized, with intelligence shared on a need-to-know basis. It’s much easier to tease out answers regarding the reactor than to question the bomb and the project’s wider legacy.

The time has come to bring the Manhattan Project’s history into focus. Thanks to Rep. Doc Hastings and New Mexico Sen. Jeff Bingaman, it may come to pass as soon as this year. Let’s hope so. History isn’t static. Our national parks shouldn’t be either.

Peter Jackson is a member of NPCA’s regional leadership council and serves as co-chair of the American Alps Legacy Campaign (www.Americanalps.org)

Above Left: Mixing. The raw materials, butadiene and styrene, and many special chemicals, are moved by these pumps from storage to the reactor areas at the Institute plant. Library of Congress **Middle:** Hanford B Reactor Control Panel. ©Sean Smith. **Right:** Aerial view of the 100-B Area in January 1945. Library of Congress

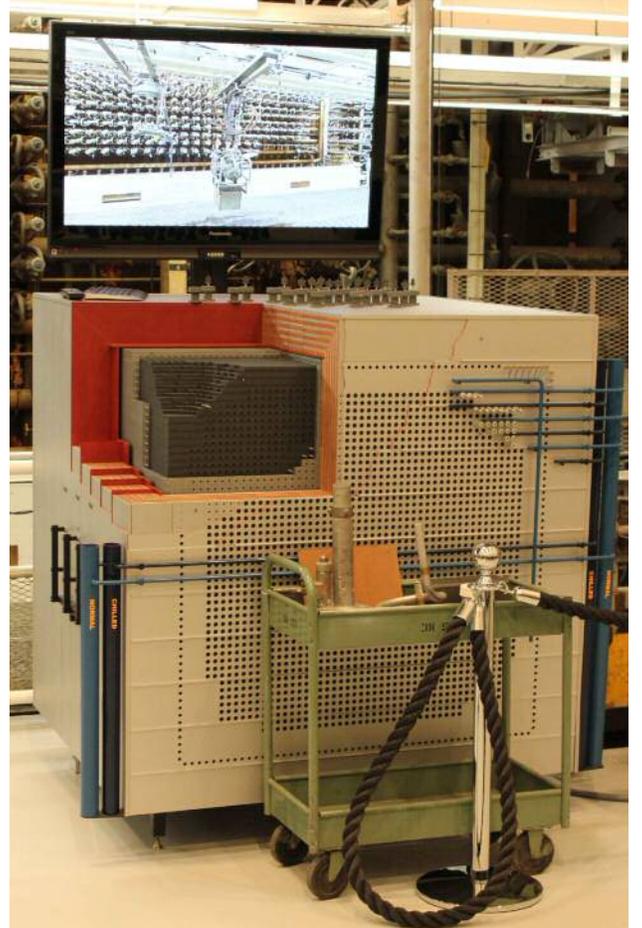


On March 24 the docent crew at B Reactor gathered in the Logston Center for a briefing on what to expect in preparation for start of the 2012 tour season at the reactor. The briefing also included a bus trip to the reactor where they became acquainted with the numerous improvements that MSA staff have made for the benefit of visitors.

**Photos by BRMA
Tour Coordinator
Bob Horgos**



Enrico Fermi and Leona Marshall have joined the B Reactor team at the Logston Office, where they are available for consultation



The B Reactor model and Pano system ready for tour use in helping explain B Reactor operation

B Reactor Tours

by Bob Horgos, BRMA Tour Coordinator

The 2012 B Reactor Tour Season began on April 2nd and terminates on September 30. As in the past, there are two separate tours: (1) Hanford Public Tours and (2) B Reactor Tours. Details for the schedules and specific requirements for both tours are posted on the DOE Hanford Web Site at www.hanford.gov. After arriving at the Hanford Web Site, click on the QUICK LINK titled Hanford Tours.



2012 BRMA Docents are (from left) Wendell Lane, Paul Vinther, Gary Busselman, Ben Johnson, Leon Ufkes, C.J. Mitchell, and Bob Horgos

The big news for 2012 B Reactor Tours is that DOE has agreed to open the tours for children from the age of 12-years old. DOE has also allowed Junior High and Senior High Classes to be scheduled for tours of the B Reactor. Details for these school tours are to be established. No school tours have been scheduled although DOE estimated that 20 School Tours would be scheduled during this tour Season. A Trial Tour for a High School group was conducted on Thursday, March 22, in order to determine the content and schedule for the School Tours. The Trial Tour accommodated a selected group of students from the Tri-Cities Delta High School that included a range of students from the Freshman to the Senior Classes. Delta High School is a cooperative hybrid school, sponsored by the combined Tri-Cities School Districts. It specializes in a Science, Technology, Engineering and Mathematics (STEM) curriculum.

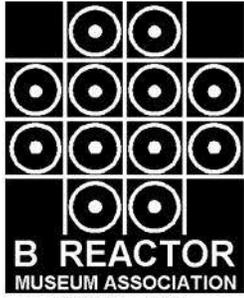
DOE had announced in February that reservations would be accepted for Hanford Public Tours starting at 12:01 a.m. on Tuesday March 6. There were 60 Hanford Public Tours scheduled that offered 2,500 bus seats for visitors. All 2,500 seats were taken in slightly less than 5 hours. Should any of these reserved seats become available during the tour season, they will be re-advertised on the Web Site. The Hanford Public Tours require 5 hours duration since they stop and visit other Hanford activities. Reservations for the Hanford Public Tours are necessary. The visitors on these tours are provided a 75-minute tour within the B Reactor.

On March 9 DOE announced that reservations would be

accepted via the Internet for 104 B Reactor Tours available beginning at 12:01 a.m. on Tuesday, March 20. About 5,000 seats are being made available and those who do not have Internet service can call the B Reactor Headquarters or visit the Headquarters, at 2000 Logston Blvd, Richland, to arrange for reservations. The phone number for Reservations is: 509-376-1647. If reservations are made for children less than 18 years old, they must be accompanied by a parent or other adult companion. The scheduled time for the B Reactor Tours is being extended to 2½ hours. In the past the time at B Reactor was 2 hours. Total time duration for the B Reactor Tours is 4½ hours.

B Reactor Tours do not require the mandatory reservations that are required for the Hanford Public Tours. The B Reactor Tours will accept “walk-on” visitors who show up at the Logston Blvd. Office on the day of any scheduled tour on a seats-available basis. Scheduled B Reactor Tour dates can be found on the DOE Hanford Web Site.

Details for both sets of tours are available on the DOE Hanford Web Page (www.hanford.gov). The Web Site also offers information on the restrictions visitors must comply with.



PO Box 1531
Richland, WA 99352

<http://www.b-reactor.org>
info@b-reactor.org

News From The Reach

by Lisa Toomey, CEO

In the coming months, the Hanford Reach Interpretive Center will be reintroducing our community to the national treasure that is the Hanford Reach National Monument and to the Columbia River. The river is what binds us all together and the stories of the river told by the Hanford Reach Interpretive Center will be our legacy to future generations. It will be a reflection of who we are and all of the elements that have been woven together to make the Reach National Monument unique in the world.

It is time to share our story locally, regionally, nationally and internationally. To that end, we have begun to roll out an education initiative designed to reach learners of all ages. Look for announcements about how young people throughout the Columbia Basin are learning about the Hanford Reach National Monument through art, culture, history, science, theatre, radio, television, music, plants, animals, photography, agriculture, sports, even quilting!

We'll be celebrating our stories, from the early formation of the Hanford Reach National Monument itself via the Ice-Age Floods and Basalt Flows, to our Native Americans, Lewis and Clark, the early White Bluffs settlers, the Northern Pacific Railroad and Pasco Airport, the construction of Grand Coulee Dam and the Columbia Basin Project bringing water to the Columbia Basin and transforming the land to an oasis in the desert and positioning the region to be the center of production agriculture in the state, and the resulting richness of cultural diversity.

Our story wouldn't be complete without inclusion of our significant role in win-

ning World War II. The Hanford Reach Interpretive Center will feature the Manhattan Project, B Reactor, and the Naval Air Station. We'll examine the Cold War years and the more recent peacetime missions of environmental restoration and stewardship at the Hanford Site. We'll talk about our community's commitment to invention and innovation. We will showcase our energy initiatives to assure a "greener" and more sustainable economy and our commitment to reducing our carbon footprint. We won't forget to talk about the "bugs and bunnies", the hundreds of critters large and small that inhabit the Hanford Reach National Monument, over 196,000 acres of land and 21 miles of the river -the last free-flowing section of the mighty Columbia, and is protected in perpetuity.

We'll talk about the future and the work of so many others to grow the wine and tourism industries, create a national park at B Reactor; re-purpose the Hanford Site; and the agriculture industry's growing responsibilities in feeding the world. We'll recognize our community's strong economic position due to our access to water, power and land.

While we learn and share the stories, we'll begin moving dirt to complete the initial infrastructure work this summer and with your help, will begin construction early in 2013. Our plan is to build in phases, with each portion of the building completely self-contained, to enable you to experience the Hanford Reach Interpretive Center for yourselves in the next two years. In the meantime, we invite you to join us in creating our legacy by sharing your stories to preserve our unique heritage and history.