# Tri-Cities, Washington, WWII Heritage City

*A series of lessons from the World War II Heritage Cities Lesson Collection*

*Figure 1: "Aerial view of the 100-B Area in January 1945, looking toward the northwest. This is one of the first photographs released to the public in 1945, and is perhaps the most often used photograph of 100-B," Richland, WA (Credit: Library of Congress)*

## Introduction

All three lessons, and the culminating lesson, support the development of understanding the significance of Tri-Cities, Washington as an American World War II Heritage City: its impacts to home front efforts such as its contributions to The Manhattan Project (the Hanford Site), Naval Air Station Pasco, and Big Pasco. The lessons highlight specific contributions but connect to larger themes and understandings of the US home front during wartime.

# Lessons (with World War II home front topics):

The first three lessons listed can be taught individually or collectively, in any order. The final lesson is to support students in combining learning across the three lessons, and/or comparison to other World War II home front cities in a culminating activity.

1. The Development of the Tri-Cities as a Home Front City (p. 5)
    - The Manhattan Project and the Hanford Site
    - Naval Air Station Pasco
    - Big Pasco
    - Camp Columbia
    - Workforce migration
    - Home front city development
2. Life and Work for African Americans on the Home front in Tri-Cities, Washington (p. 18)
    - The Manhattan Project and the Hanford Site
    - African American History
3. The Hanford Site: Workers During and After the Atomic Bomb (p. 30)
    - Women's history
    - Women in the workforce
    - Science and technology
    - The Manhattan Project
    - Post-war impacts of The Manhattan Project
4. Tri-Cities, WA: Comparing and Connecting World War II Home Fronts (p. 41)

# Positioning these Lessons in the Curriculum:

The standards listed beneath the lesson links are a collection of standards covered in the lesson collection. Objectives for each lesson, materials, and resources are listed within the lesson.

Time period: World War II

Topics: World War II, women's history, African American history, workforce migration, science and technology

## United States History Standards for Grades 5-12

*This lesson relates to the following National Standards for History from the UCLA National Center for History in the Schools:*

### Era 8: The Great Depression and World War II (1929-1945)

Standard 3: The causes and course of World War II, the character of the war at home and abroad, and its reshaping of the U.S. role in world affairs

### Curriculum Standards for Social Studies

*This lesson relates to the following Curriculum Standards themes for Social Studies from the National Council for the Social Studies:*

- Theme 2: Time, Continuity, and Change
- Theme 5: Individuals, Groups, and Institutions
- Theme 8: Science, Technology, and Society
- Theme 9: Global Connections

### Relevant Common Core Standards

*These lessons relate to the following Common Core English and Language Arts Standards for History and Social Studies for middle and high school students:*

#### Key Ideas and Details

- CCSS.ELA-LITERACY. RH. 6-12.1
- CCSS.ELA-LITERACY. RH. 6-12.2

#### Craft and Structure

- CCSS.ELA-LITERACY. RH. 6-12.4

Integration of Knowledge and Ideas

- CCSS.ELA-LITERACY.RH.6-12.7
- CCSS.ELA-LITERACY.RH.6-12.9

Range of Reading and Level of Text Complexity

- CCSS.ELA-LITERACY.RH. 6-12.10

*The lesson series was written by Sarah Nestor Lane, an educator and consultant with the Cultural Resources Office of Interpretation and Education, funded by the National Council on Public History's cooperative agreement with the National Park Service.*

# Lesson 1: The Development of the Tri-Cities as a Home Front City

## About this Lesson

This lesson is part of a series teaching about the World War II home front, with Tri-Cities, Washington as an American World War II Heritage City. Tri-Cities, Washington is comprised of Kennewick, Richland, Pasco, and the surrounding areas. The lesson contains photographs, two background readings, and a primary source to contribute to learners' understandings about the home front contributions of the Tri-Cities. It explores the migration of workers to meet the employment demands of the local war industries.

## Objectives:

1. Identify factors that led to the growth and development of the Tri-Cities as a home front city.
2. Describe the effects of the workforce that migrated to the Tri-Cities region.
3. Evaluate the impact of Tri-Cities contributions to home front efforts.

## Materials for Students:

1. Photos: Figures 2-9 *(can be displayed digitally)*
2. Readings 1 & 2 (one secondary; one primary)
3. *Recommended:* Washington State map with landmarks and cities.
4. *Extensions:* 1) Reading 3: Prison Labor, 2) "The Sage Sentinel" Collection

## Getting Started: Essential Question

How did the Tri-Cities, WA region evolve as a home front city over time?

# Photos


*Figure 2: Hanford, Washington in 1912. (Credit: Hanford History Project at Washington State University Tri-Cities)*

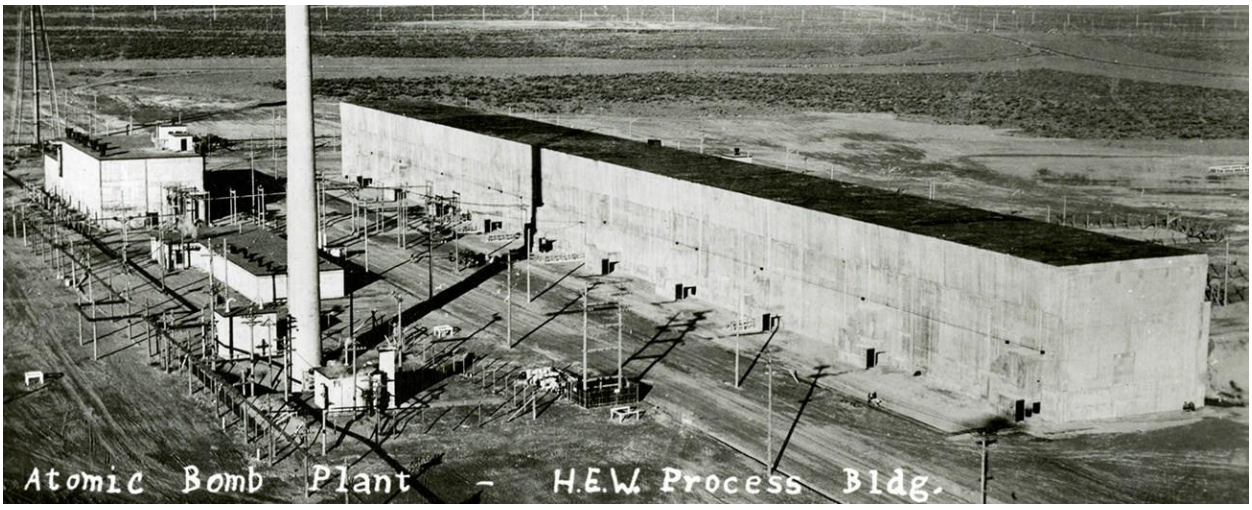


*Figure 3: "T Plant at Hanford, Washington was designed to process about a half-pound (250 grams) of plutonium metal from one ton (907kg) of irradiated uranium each day" (Credit: U.S. Department of Energy, via National Park Service)*


*Figure 4: Men's only sleeping quarters – Pasco, 1944; (Credit: Hanford History Project at Washington State University Tri-Cities)*

*Figure 5: Naval Air Station Pasco (Credit: Franklin County (WA) Historical Society)*

## By the numbers:

- The land for the Hanford Site was purchased at $5.1 million (about $86.3 million in 2022).
- In 1940 there were about 6,000 residents in the Tri-Cities area; by June 1944 there were over 50,000, becoming the state's 5th largest city.
- 1,039,000 square feet – or about 24 acres -- the area of "Big Pasco," a Washington State Army Depot.

## Quotation to consider:

"Kennewick has increased in population more than 50 percent in the past three years, with the immediate prospect of a vaster increase."

- March 18, 1943 in *The Kennewick Courier-Reporter* (p.1)

# Read to Connect

## Reading 1: Tri-Cities' Changing Landscape and Population

By Sarah Nestor Lane

*Teacher Tip: Optional Reading 3 shares more about Big Pasco, another example of a changing landscape.*

The development of the Tri-Cities area was influenced by the needs of the home front during World War II. Aviation and the development of the atomic bomb, or the Manhattan Project, are two examples of how the land developed and changed. Both brought in civilians and service members to the area for work.

### Aviation in Pasco

In February 1942, the US Navy bought a large piece of land near a small airport for $5,000. They did this to move Seattle's Sand Point Naval Air Station to inland Pasco, so it would be safer from possible attacks by the Japanese during World War II.

The Navy worked quickly to turn the empty land into a busy naval training base, called Naval Air Station Pasco They cleared the area of brush and grass and then built runways, hangars, and barracks. At first, the base was used to train pilots and fix damaged planes

that came back from the Pacific. Later, it became a place where experienced pilots learned to fly newer aircraft.

Naval Air Station Pasco was the first place where the WAVES, which stands for Women Accepted in Volunteer Emergency Service, were allowed to live on the base. It was common for the women here to serve as "ferry pilots." This meant flying planes to Alaska and Russia to help the Allies during the war.

### Displacement for the Hanford Site

The land for the Hanford site was selected by Civil Engineer Franklin Thompson Matthias in December of 1942. It was selected due to its isolated location and closeness to the Columbia River. The main role of the Hanford site was to produce plutonium for the development of the atomic bomb for The Manhattan Project. The water from the river would help cool the reactors. But, the land was not empty.

After Matthias selected the area for the Hanford site, the federal government took control of around 600 square miles of agricultural and residential land along the Columbia River using eminent domain. For comparison, this is about twice the area of the city of San Antonio, Texas. This meant the approximately 2,000 landowners and people who lived there had as little as 30 days to leave their homes. Some of them wanted to come back during the day to harvest their crops. The US Army said no to these requests because they thought it would be too hard logistically and not safe for security reasons. Before these landowners, Native American tribes had lived on the land since before recorded history. They had been removed from the land, but had limited access. The Hanford site fully restricted and removed their access.

Farmers protested the decision to be moved from the land. Their concerns reached President Roosevelt, who was worried about the nation's food supply. A group led by Senator Harry S. Truman investigated how money was being spent during the war and wrote a letter to the Department of War, questioning why they needed so much farmland. This would lead to other agricultural efforts but did not change the course of development of the land for the Hanford site.

### Life in the Region

Thousands migrated, or were sent to, the cities of Pasco, Kennewick, and Richland and the region. Most were to work at the Hanford Site, but there was also Naval Air Station Pasco, Big Pasco (an Army depot), and local businesses and industries. Workers included African American migrants, looking for new opportunities, and women. Both had previously been unable to work in some of the roles now available to them. Buildings, businesses, and

homes had to be built to accommodate the influx of workers, and the Tri-Cities became the 5th largest city in the state of Washington.

Local bulletins covered community events and employee bulletins also contained safety news. The "Sage Sentinel" was published specifically for those working at the Hanford site in Richland and provided similar information and updates for employees. Other city bulletins contained information on theater schedules, softball games, victory garden applications, and church events. However, local African Americans faced segregation and discrimination from most activities in Richland and Kennewick. They were wrongly segregated to areas in Pasco, and some lived in segregated housing at the Hanford site.

### Questions for Reading 1 and Photos 2-5

1. What type of land development was happening? Compare the development to Figure 2.
2. Why did the US Navy purchase land, and what was its purpose?
3. Describe the history of the land at the Hanford site. Do you think it was right to move the farmers? Why, or why not?
4. Why did the population of the Tri-Cities increase? What challenges may the area have faced with the increase in population? *(You will build on this question after Reading 2.)*

## Photos


*Figure 6: "Staff and applicants in Employment 1 office. Employment - Record Day," 12/21/1943. (Credit: Hanford History Project at Washington State University Tri-Cities)*

*Figure 7: "Naval Air Station, Pasco, Washington, July 1943. Pleased with their Navy chow are these two WAVES who look on approvingly as Ship's Cook Second Class H.D. Hawley adds a dash of special dressing to a salad. Though the Navy does not pamper the Women's Reserve, nevertheless, it believes in offering them special dishes so appreciated by women. The women are, (from the left), Yeoman Second Class Alice Evans and Seaman Second Class Donna Huston." (Credit: National Museum of the U.S. Navy / National Archives)*

## Reading 2: Newspaper Article

*Teacher Tip: Prior to reading, address the term "Negro," as the author describes a group of women, and how this was used as discriminatory language at the time. We do not use this term today. Also, it is important to note that African American workers in the Tri-Cities experienced segregated living; this can be explored more with students using Lesson 2.*

### "Workers Jam Trains to Pasco"

#### Thousands Pour Into City; Railways Average 300 Daily

By Leon Starmont, *The Spokesman-Review*, April 22, 1944 (p.15)

PASCO, Wash., April 21 – Every train into Pasco brings from 50 to 1000 men and women bound for jobs that will help win the war. The average is about 300 a day. On the Northern Pacific North Coast Limited this morning there were about 150, mostly recruited by the United States employment service in New York City, western Pennsylvania and Birmingham, Ala.

There were carpenters, plumbers, electricians, steam fitters and common laborers. There were 40 Negro women headed for Hanford, Wash., where they will be waitresses and kitchen helpers.

### Housing Provided

Pasco is crowded far beyond its hotel and housing capacity. But the government, the army and the several contractors on federal projects in this vicinity have worked out a system of handling the newcomers that provides all except casual motorists with places to sleep and eat.

When the westbound limited reached Spokane, all coach passengers with destination Pasco were moved into the two or three forward cars of the 20-car train's first section.

At Pasco a dozen men with badges and arm bands sorted them into groups segregated by occupation and names of the employer for whom they were recruited. Husbands and wives said goodbye to each other and left for temporary dormitories, most of the men to near-by "Little Pasco."

### Curious about Country

The few white women went to the so-called transient quarters at Richland, which is actually a modern hotel. Bus after bus is lined up and loaded. Let's follow this load of building trade workers, mostly recruited by newspaper advertising around New York and Pittsburg.

For virtually all it is the first trip west of Chicago. For some it is the first venture west of the Hudson River. They are curious about the country and about their jobs and their working conditions. They know little about the places they are going to except that the towns are new and the jobs – whether they be at the big Pasco reconsignment base, the Hanford engineer works or other points – have to do with the war.

### Undergo Rigid Check

Most are destined to work at Richland or Hanford, the former being a model town housing project, the latter a military installation of which Richland will be the residential area. This group goes first to a commissary for a coffee and doughnuts, then to the barracks at "little Pasco" on the east out-skirts of the city, where each man has a cot.

After a few hours' sleep they are taken to the Du Pont company hiring hall, photographed and fingerprinted, their labor availability checked. The next step is the union office. Most of these men are already members of some building trade union and require merely a transfer of membership to the Pasco or Hanford local.

Other than questions about the job, they may ask such things as these: Is Mount Rainier visible from Hanford? Is there a bus to Grand Coulee dam? When will I be able to send for my wife and family? How long does the average employee stay on this job?

### Left Families Home

The projects are so new that the last question cannot be answered. More than half the men on this train have wives and families back east but were advised to leave them there. A few have followed construction work under pioneering conditions before, in Texas oil fields or Appalachian power developments.

## Questions for Reading 2 and Photos

1. What drew newcomers to Pasco?
2. How did the government, army, and contractors handle the issue of too many people in Pasco?
3. How do you think the way newcomers were sorted and segregated in Pasco during crowded times might have affected their feelings and experiences?
4. Why may the author compare coming to the Tri-Cities to "pioneering conditions" of Texas or Appalachia? *(See section "Left Families Home.")* Do you agree with this comparison, and why?
5. *Optional:* Plot Mount Rainier and the Grand Coulee Dam on a map of Washington to compare to the location of the Hanford site. How would you think these questions to the employees were answered? *(See section "Undergo Rigid Check.")* How does this help you understand the location of Tri-Cities and the Hanford site?

# Extension Activities

## 1) Reading 3 (Optional): Prisoner Labor

By Sarah Nestor Lane

*Teacher Tip: Not all contributors to the home front in the Tri-Cities region were by choice. Italian Prisoners of War worked at a large Army depot nicknamed "Big Pasco," while imprisoned American men from a penitentiary worked in agriculture at Camp Columbia.*

### "Big Pasco" and Italian Prisoners of War

*Figure 8: An empty lot, with gravel roadway, plants, trees and water in the distance. This place was once home to "Big Pasco." (Credit: NPS / Burghart)*

Looking at the photo, imagine the sounds and activity you would once see here: Between 100 – 225 railroad cars coming through this area daily! Believe it or not, this area was once one of the largest wartime logistics centers in the United States.

To build the center, there were as many as 800 workers, including African American segregated labor units. It opened on August 15, 1942, and was the site of packing and repackaging supplies. Big Pasco had two parts: the "Pasco Holding and Reconsignment Point," which handled supplies going to American allies, and the "Pasco Engineer Depot," which supplied places like the Hanford Engineer Works. There was a shortage of US soldiers and civilians to operate this site on their own.

Italian prisoners of war (POWs) were brought in to work at Big Pasco from 1944 to 1945. The *Pasco Herald* reported on August 10, 1944, the Italians would be "used to perform necessary labor operations which have heretofore been neglected because of the impossibility of obtaining sufficient manpower."

These Italian soldiers had surrendered on the battlefield and were brought to the United States to help with work. Even though they were considered enemy POWs, they were paid wages and sometimes had money to spend, like at the on-site canteen. (A canteen is a restaurant provided by an organization such as the military.) The Italian POWs did essential

jobs that there weren't enough workers for. They operated heavy equipment and drove American military vehicles.

### Camp Columbia and Prisoners in Agriculture

*Figure 9: "Columbia Prison Camp (Minimum Security State Prison), Horn Rapids on Yakima River," (1944) (Credit: Hanford History Project at Washington State University Tri-Cities)*

Much agricultural land was used up for building the Hanford site. Farmers pressured the government to save the land for farming due to the high need for food during the war. In response to the pressure, Colonel Franklin Matthias, who oversaw the Hanford Engineer Works, made a deal with a government agency called Federal Prison Industries to increase agricultural production. This agency was responsible for using inmate labor.

The Federal Prison Industries agreed to build and take care of a prison camp near the Hanford Site. Prisoners came from McNeil Island Federal Penitentiary in Western Washington. The army provided the necessary equipment and supplies for the camp and the Federal Prison Industries transferred prisoners to Camp Columbia to do the work. The prisoners selected by the prison to come were ones with no more than a year of a sentence left. They were "minimum-custody-type improvable male offenders." These included conscientious objectors, people who were opposed to serving in the armed forces for

moral or religious reasons. (Approximately less than 30% of inmates at the time were conscientious objectors.) The selection of prisoners was taken seriously, and their criminal background examined, as there were fears of a risk of access to the secrets of the Manhattan Project.

Camp Columbia was open from February 1944 to October 1947. A total of 1,300 served there. At any given time, between 250 and 290 inmates were housed in the camp. The prisoners worked on over 1,000 acres of orchards, vineyards, asparagus, hay, and potatoes. From 1944 to 1947 the camp produced more than $500,000 worth of crops, which is worth more than $7 million today.

### Questions for Optional Reading 3

1. What was the significance of Big Pasco during World War II?
2. How did Italian prisoners of war (POWs) contribute to operations at Big Pasco?
3. How did Colonel Franklin Matthias and the government address the need for increased agricultural production?
4. How do you feel about using POWs to work at Big Pasco, and prisoners at Camp Columbia? Do you think it was fair to use inmates and prisoners for the war efforts, and what are some ethical concerns that come to mind?

## 2) "The Sage Sentinel" Collection

Support your students' understandings with more visual, multimedia resources. "The Sage Sentinel" was a publication for the employees at Hanford and offer us a unique perspective into employees' lives. Students can individually or in groups select different dated publications and report on their findings.

The Sage Sentinel Collection: Hanford History Project

a. Examine the cartoons, such as the "Life in Hanford" series. What do you notice?
b. Read about the community happenings and events. Do you think this was a welcoming community to all? Why or why not?
c. What surprises you about the publications? What connects to the lesson readings?
d. You may also compare this collection to this Photo Gallery by the Hanford History Project by Washington State University Tri-Cities.

# Additional Resources

## Historical Background of the Area

Displacement at Hanford (U.S. National Park Service) (nps.gov)

First National Bank of White Bluffs (U.S. National Park Service) (nps.gov)

History of the Hanford Site (osti.gov)

Howard Amon Park (U.S. National Park Service) (nps.gov)

Manley Bostwick Haynes and Judge Cornelius Holgate Hanford (U.S. National Park Service) (nps.gov)

Prosser Cemetery (U.S. National Park Service) (nps.gov)

Tribal Nations - Manhattan Project National Historical Park (U.S. National Park Service) (nps.gov)

Wanawish/Horn Rapids Dam (U.S. National Park Service) (nps.gov)

# Lesson 2: Life and Work for African Americans on the Home front in Tri-Cities, Washington

## About this Lesson

This lesson is part of a series teaching about the World War II home front, with Tri-Cities, Washington as an American World War II Heritage City. Kennewick, Richland, and Pasco, Washington, comprise the "Tri-Cities." The lesson contains photographs, one background reading, and two primary source interviews to contribute to learners' understandings of the contributions of African Americans in the Tri-Cities and the wrongful discrimination against those that lived and worked there. Many moved to the area for employment connected to the maintenance and operations of the facilities that contributed to the Manhattan Project at the Hanford Site. The Manhattan Project led to the creation and use of the atomic bomb in World War II.

## Objectives:

1) Describe why African Americans would move to the Tri-Cities, and the lifestyle and activities of those living there.
2) Identify examples of segregation and discrimination faced by African American Hanford Site workers and Tri-Cities residents.
3) Explain how African Americans contributed to the Manhattan Project, specifically at the Hanford site.

## Materials for Students:

1. Photos: Figures 10-14 *(can be displayed digitally)*
2. Readings 1, 2, 3 (*one secondary, two primary*)
3. *Recommended:* Map of the Tri-Cities region to plot locations, specifically the three cities of Richland, Kennewick, and Pasco, and their location relative to the Hanford site. For this lesson, more detailed maps of Pasco may also be helpful.

# Photos

*Figure 10: African American workers at Hanford with white supervisor, July 20, 1944 Credit: U.S. Department of Energy)*

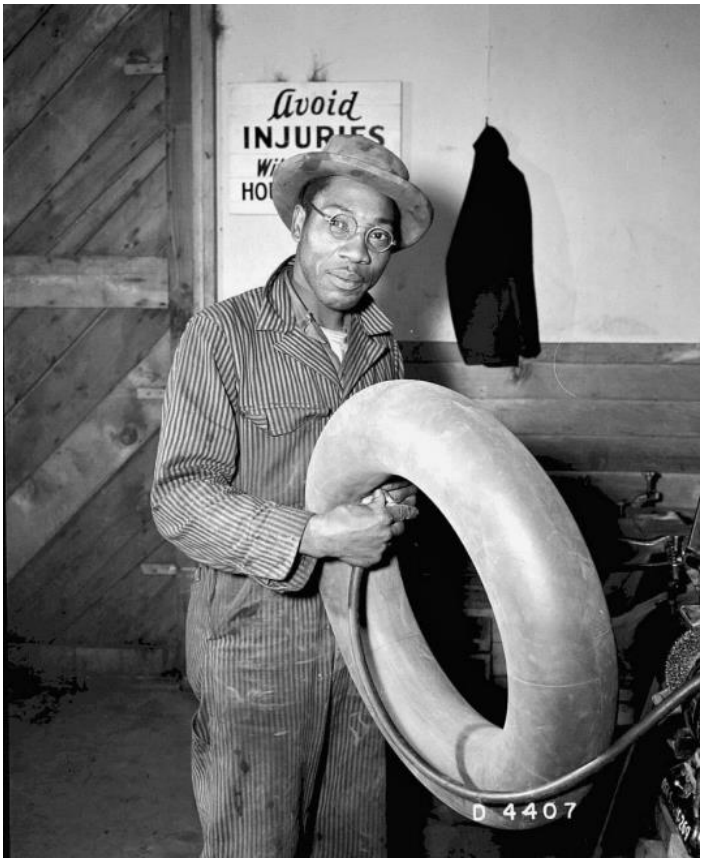


*Figure 11: "Worker repairing an inner tube at Hanford Site, ca. 1943-1945." (Credit: U.S. Department of Energy, Creator: U.S. War Department.)*


*Figure 12: Although this photo is from after the war (a Civil Rights protest in 1963), it shows the continued discrimination fought by African Americans in Kennewick, WA that continued from home front era segregation. Sign messages in the photo include: "Why is Kennewick ALL WHITE!" and "The South has no monopoly on bigotry." (Credit: Franklin County Historical Collection)*

## Getting Started: Essential Question

How did African American workers contribute to the Manhattan Project at the Hanford site, and what barriers did they face while living in the Tri-Cities?

### By the numbers:

- Approximately 443,000 Black Americans moved to Washington, Oregon, and California to work in the defense industries.
- About 15,000 Black Americans moved to the Tri-Cities area between 1943-1945.
- 50,000 workers were at Hanford. Just over 5,000 were African American.

## Quotation to consider:

(Interviewer): "And tell us again why most blacks lived in east Pasco."

Interviewee Virginia Crippen: Because they didn't have no other choice. They lived in tents, cardboard houses, made the siding out of cardboard, the top canvas. The best they could do, because there was no place to live and it was work out at Hanford."

- From the Hanford History Project's interview with Virginia Crippen

# Read to Connect

## Reading 1: African Americans' Work and Living Experiences in the Tri-Cities

By Sarah Nestor Lane

*Teacher Tip: Topics you may want to explain further to students include Executive Order 8802, and "Red lining." "Red lining" is a discriminatory practice where services are withheld from residents of certain neighborhoods with significant numbers of racial and ethnic minorities.*

In 1941 President Franklin D. Roosevelt issued Executive Order 8802. The order prohibited discrimination in defense industry hiring based on "race, creed, color, or national origin." The DuPont Company built and operated the Hanford Engineer Works. DuPont was under contract with the federal government. DuPont hired African Americans, as required by the Executive Order. The Hanford Site operated the first nuclear production reactors that produced plutonium. This led to the development and use of the atomic bomb "Fat Man." The United States dropped the bomb on Nagasaki, Japan, on August 9, 1945. It resulted in the loss of thousands of Japanese lives.

### African American Workers at the Hanford Site

African American migrants moved from Southern states to work in the defense industry. Many had expected less discrimination in Washington than the South. However, even in Tri-Cities, Washington, 'Jim Crow' laws and segregation were present like they were in the South. These laws enforced segregation and aimed to strip African Americans of their rights.

The Manhattan Engineer District (MED) at the Hanford Site limited African American employment. The district made sure African American employees did not go over 10-20%

of the workforce. African American men were in positions such as construction workers, laborers, and janitors. The MED limited African American women mostly to domestic positions such as maids, waitresses, and cooks. All-Black crews worked under white supervisors. African American jobs were lower paid and labeled as temporary. This situation affected housing and financial opportunities. In a later interview with the *Tri-Cities Herald*, waitress Lula Mae Little, who worked at the mess hall, called the site the "Mississippi of the North."*

Segregated housing at the Hanford site included barracks and a trailer camp. Those not living at the site often lived in the segregated city of Pasco. Of the nine mess halls at Hanford, only one was open to African Americans. Other segregated places were buses, restaurants, stores, barber shops, and social events. One example of a popular African American recreational activity was baseball. The Hanford Eagles was an all-African American baseball team.

### Discrimination and Segregation in the Tri-Cities

African American workers were not allowed to live in Richland or Kennewick. The government formed Richland for permanent workers in skilled positions, like scientists. DuPont and the MED labeled African American workers as temporary. African Americans had limited to no opportunities to be hired for skilled positions. The Green Bridge in Kennewick supported the segregation of African Americans from Pasco. Less than ten African Americans worked in Kennewick, and all in unskilled positions.

Marion Barton, who would become the first Black woman to be a Pasco city council member, grew up in East Pasco. She recalled in an interview, "I know my mom would ramble on sometimes, but my mom would say you couldn't even get arrested in Kennewick; like, they wouldn't even put you in jail if you were Black." Barton remembered her mother telling her about when police restrained an African American man at a Kennewick lamppost on a busy street. He was a Hanford worker who was arrested for riding in a car with two white men. He was not permitted in the white jail in Kennewick. Kennewick officers called officers from Pasco to pick him up.

### East Pasco

Black residents in the Tri-Cities lived in Pasco, east of 4th Avenue. Residents went to their side of Pasco by the Lewis Street Underpass. East Pasco had few community services. Living conditions were not as good as those in Richland or Kennewick. There were discriminatory red-lining practices. These included a lack of access to services like insurance loans or mortgages.

African Americans developed churches, shops, restaurants, and more. The Morning Star Baptist Church is an example of a church. The community created Kurtzman Park in the 1950s. The African American community in East Pasco was a source of pride for many. Few of the original buildings in East Pasco remain, but celebrations of African American history and culture continue. For example, the state's longest running Juneteenth celebration happens yearly in Pasco.

*Source: "African Americans and the Manhattan Project"; Ruffin, Taylor, and Mack (2018), *Freedom's Racial Frontier*

***Source:* Interview with Marion Keith Barton · Hanford History Project

## Reading 2: Joe Williams, Hanford Site worker, Interview

*Joe Williams' Interview is a part of the Hanford History project's African American Community Cultural and Educational Society collection.*

*Teacher Tip: You may choose to divide students into groups to read either Reading 2 or Reading 3's interview and report back with notes.*

Vanis Daniels (Interviewer): . . How long did you work at Hanford?

Joe Williams (Interviewee): Three-and-a-half years.

Daniels: Okay. Now, did you have any idea what you were working on? Did they give you any information about what you were doing? Did they say anything to you as to whether you should talk about what you were doing or anything like that?

Williams: You couldn't talk about nothing you was doing. With nobody.

Daniels: And, did you know what—have any idea what you were building or what you was contributing to, or anything?

Williams: Nope. Because you go in one cell; if you was in Cell 45, you wouldn't know what they was doing in Cell 18–now, you stuck with 45. And that's where I was stuck, on Cell 45.

Leonard Moore (Interviewer 2): And Cell 45, it was a work room?

Williams: No, that down in the ground, 45 feet deep.

Moore: Oh, it was an area.

Williams: Uh-huh. Where you had the rubberizing. Rubberizing, spark-proofing and all like that. No crew worked—they worked in once place. It wasn't the way you work here and work there. I was assigned out as being a chief rubberizer, spark-proof, stop any leaks that

ever started. That's what we were transferred all the way from back east here for that. Weren't but eight peoples in the United States had that trade and I was dumb enough to be one out the eight.

Moore: Let's talk about the barracks.

Daniels: Okay. In living in the barracks, were you and your wife able to live together?

Williams: Nope.

Daniels: Would you tell us a little bit about how you guys lived out in the barracks?

Williams: She lived in the women barracks and I lived in the men barracks. And they had wired fences up like penitentiary around all the women barracks. And the only way you could get in there—you had to get—you could visit–and they had a big rec-room and that's far as you could get. You didn't know what room she slept in, or didn't know nothing. You could go in the rec-room, that's far as you could go. But she could come to the men's barracks, down there, and go all the way through it. But a man couldn't go in the women's barrack without going through the police, or the guard, or whatever he was. . .

Daniels: Okay. Now, If, when you—after, in other words, since you couldn't talk about what you did, and you didn't know what the project was about, when did you learn that you were working on the Manhattan Project or that you were helping the war effort by the job that you were doing?

Williams: After they started testing it. We didn't know what we was doing. We was just doing, in one cell. Men worked in 45 cells, and I don't know nothing but for the one. You don't work—don't nobody work in each other's cells. About five different craftsman worked in the cells. . .

Daniels: Make sure you tell us about the red line. In other words, once you got past 1st Street or 4th Street, or wherever it was, nobody would loan you any money. Where they red-lined east Pasco.

Williams: Oh yeah. Okay, I see.

Daniels: Mr. Williams, could you tell us a little bit about the living conditions and the availability of funds for black people or being able to better yourself in Pasco?

Williams: The banks had a boundary. Nobody on the east side of 4th Street would they lend. Nobody, to nobody. On the east side of 4th Street. . .

Daniels: And were you able to go in restaurants, and sit down and have a meal? Or was it segregated? How did you do for getting haircuts, et cetera, et cetera?

Williams: Well, it wasn't any place, legally, for haircuts. And we had one colored guy run a café there, that's the only one you could go in. I forget the name of it. And no place for cleaning or laundry; you had to settle to Walla Walla, Washington.

### Questions for Reading 1, 2, and Photos 10-12

1. What required the inclusion of African Americans as workers in the defense industry?
2. Why did so many African Americans choose to move from the South?
3. Describe the work and opportunities for African Americans at the Hanford Site and in Tri-Cities.
4. How did African Americans develop East Pasco? Why is this significant?

## Photos


*Figure 13: "Camp Hanford entertainment program for black workers. Events were segregated. Hanford Theater Opening. Lindy's Blues Chasers band in background," 12/19/1943, (Credit: Hanford History Project at Washington State University Tri-Cities)*


*Figure 14: The Hanford Eagles baseball team, September 21, 1944 (Credit: U.S. Department of Energy)*

## Reading 3: Aubrey Johnson Interview

*Aubrey Johnson's Interview is a part of the Hanford History project's African American Community Cultural and Educational Society collection.*

Aubrey Johnson (Interviewee): For east Pasco it was just like a family. My mom would say, son, you be at home before the sun go down. I mean, be in this yard. And she could yell and I could hear her for like three or four blocks away, and then I would head home. All my friends and stuff that I basically went to school with, all of us black kids—because they were doing busing—once we got off the bus, we all walked home together, we played together, we threw rocks, we rolled tires.

It was a lot of fun growing up out there, I hated to see it when Urban Renewal came. Because what it did, it removed the black people from the little shacks, they call them, the little homes they had to the projects. And then we lost everything that we had, because all of that was gone. It was just kind of a bad situation. It was supposed to be in the name of interests, the self-help co-op. . .

We had no representation. When they got ready to open that corridor to Big Pasco, they wanted to grab A Street—not A Street, Oregon Street. That's a throughway from the freeway all the way to the river. Well, black people owned all that property from the railroad over. When I was growing up, we always heard that railroad property is worth no money, okay? So when this redevelopment come in, it wasn't redevelopment; it was reclaim. They came in and the city—you had to sell it. They gave you nothing for it. . .

Franklin (Interviewer): It took a while for east Pasco to get the sewer connections and things. That was one of the major complaints that the black community had in east Pasco with the city was the lack of water.

Johnson: Right, the lack of water, the lack of sewage before they put it down on our street. There was Elm Street, which was one of the major throughways through there now, and then our street and the next street over. Some people had a cesspool. Unfortunately, we didn't. We had to dig our own waterline and they dug it and it came from the Methodist Church down to our house so we could have water. Like I said, it was just a faucet and you go and turn it on, it was cold water and then you boil your water. I can remember being a kid where I had to take a bath in a tin tub. And they would boil water and pour it in the tub and then run some cold water and put it in there for you to cool it off. . .

Franklin: Yeah. So I wanted to ask—since your mom, for a small time, worked out at Hanford, and your stepfather worked at Hanford, I wanted to ask, what was your reaction, or what do you know about your parents' reaction to learning that they had kind of worked at a site that was crucial to the development of nuclear weapons?

Johnson: That was something that was never discussed. Matter of fact, I don't know whether they even really realized what Hanford was doing, when they were doing plutonium and all of that—because I had heard that they had built the mechanism for the atomic bomb and all this different kind of stuff—that they really realized what they were doing when they were working there. Because I heard just recently when they came and that a lot of guys, black people were doing the cement work and stuff for these reactors and all of that, and they was going down there and digging holes and doing different stuff and they wasn't told what detriment that that was having on their body.

And, hey, later in 30 or 40 years you're going to have cancer. They wasn't told that, even though the government knew it. But it was like, hey, we got to get this work done, we got to have somebody down here to do it. So, who are we going to get to do it? And that's just the way that it was. I don't think that it was something that was discussed; it was just a job. You didn't really realize what you were doing.

One of the things that really upset me with this Hanford thing is, because I know of a lot of people, black people that ended up with cancer. Man, it took them forever to get any money out of that, when the Caucasian people had been getting paid all the time. And you go to the doctor and then you'd send all your research papers and stuff back, and then they'd say, well, you need this, or you don't quite have all that together. And it was years, and years, and years, because there was no awareness there. There was no person that was really reaching out from Hanford to make you aware of the moneys and the stuff that they had out there for you to receive. . .

Franklin: What do you think is the most important legacy of the Hanford Site?

Johnson: It brought a lot of work here to the area, it opened up the doors so that pretty much anybody could get a type of job. Even though you started off at the bottom as being a custodian, and kind of like, if you stayed there long enough you might be able to work your way up to a management part of it. . .

### Questions for Reading 3 and Photos 13-14

1. How does Johnson's description of losing areas of East Pasco (post-War) to developers connect to Reading 1's description of East Pasco and its significance?
2. What challenges to working at the Hanford Site does Johnson describe?
3. Reread the last question and response. How would you describe the legacy of the Hanford Site? (Consider how your response may change when considering the multiple perspectives of those impacted by the atomic bomb.)
4. Answer the essential question using evidence from the primary and secondary sources: *How did African American workers contribute to the Manhattan Project at the Hanford site, and what barriers did they face while living in the Tri-Cities?*

## Additional Resources

"African Americans and the Manhattan Project"; Ruffin, Taylor, and Mack, *Freedom's Racial Frontier*

African Americans and the Manhattan Project - Nuclear Museum

African Americans and Life in a Secret City_Photographs of African Americans at

Hanford.pdf (aip.org)

How Jim Crow policies shaped the Tri-Cities - Northwest Public Broadcasting (nwpb.org)

"Jim Crow in the Tri-Cities, 1943-1950" by Robert Bauman (2005), *The Pacific Northwest Quarterly* by the University of Washington, 96(3), pp. 124-131

Mapping Tri-Cities Race and Segregation (washington.edu)

Series: Curiosity Kit: African American Baseball (nps.gov)

# Lesson 3: Hanford Site Workers in Tri-Cities, Washington

## About this Lesson

This lesson is part of a series teaching about the World War II home front, with Tri-Cities, Washington as an American World War II Heritage City. Kennewick, Richland, and Pasco, Washington, comprises the "Tri-Cities." The lesson contains one secondary background reading about workers at the Hanford Site, and then two primary source readings. There is a focus on the role of women at the Hanford Site and how their contributions, and perceptions of these, changed over time. An optional activity supports students in researching the impact of the Hanford Site on the environment and community over time.

## Objectives:

1. Analyze sources to describe how workers contributed to the success of the Hanford Site.
2. Develop a deeper understanding of the changing perceptions of women in the workforce during the war era, such as in Tri-Cities, Washington.
3. Reflect on the impact of the Hanford Site's involvement in producing the atomic bomb for the Manhattan Project.
4. *Optional*: Conduct research to understand the long-term consequences of the Hanford site's operations beyond the war period.

## Materials for Students:

1. Photos: Figures 15-20 *(can be displayed digitally)*
2. Readings 1, 2, 3 (*one secondary for background; two primary)*
3. *Recommended:* Map of the Tri-Cities region
4. Extension Activities

## Getting Started: Essential Question

How did diverse groups of workers at the Hanford Site contribute to the success of the Manhattan Project?

# Photos

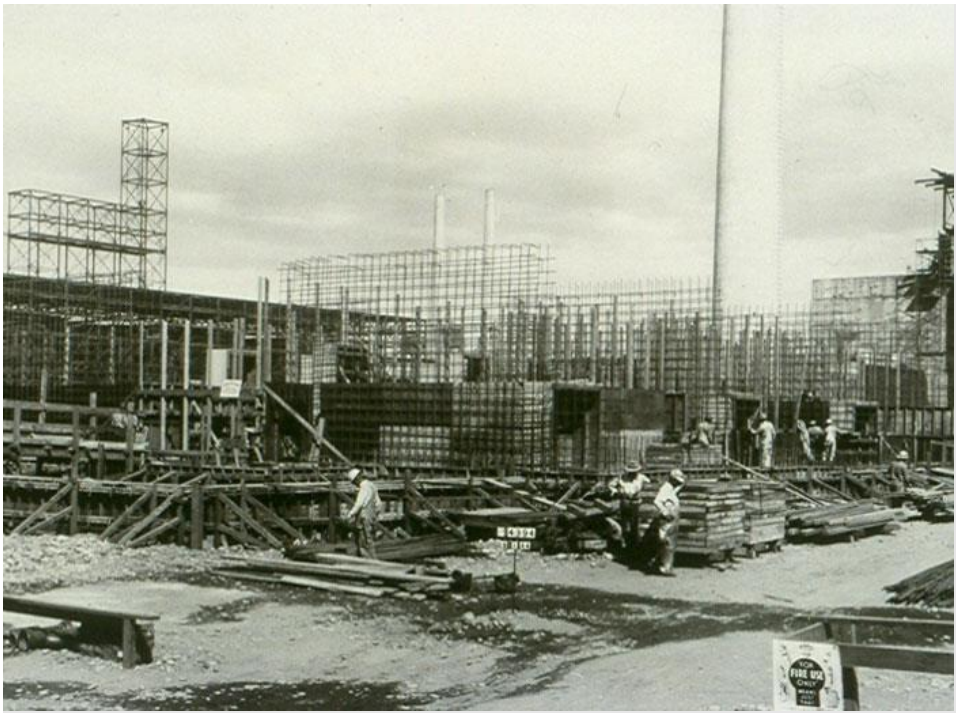


*Figure 15: Construction of B Reactor in 1944 (Credit: Washington State University Tri-Cities)*

*Figure 16: Women workers at the Hanford site distributing employee newsletters (Credit: Washington State University Tri-Cities, Department of Energy)*

*Figure 17: Dr. Leona (Woods) Marshall Libby (front row, first on left) was the only female scientist who worked at the B reactor at the Hanford Site. (Credit: Department of Energy)*

## By the numbers:

- Of the 179,000 recruited for the atomic bomb project, 80,000 were for the Hanford site. - Statistics shared in the *Spokane Chronicle*, August 7, 1945 (p.2)
- 40,000 employees lived in Hanford barracks; the rest lived in the surrounding Tri-Cities area.
- 8 mess halls, each the size of a football field, served employees. 6,500 eggs were served at Sunday breakfasts, and a total of 120 tons of potatoes were eaten daily.
- More than 50,000 local workers, including workers from Naval Air Station Pasco, contributed to the purchase of a B-17 heavy bomber, named "Day's Pay," by donating a day's pay to the project.

## Quotation to consider:

"[The women] are doing one of the finest acts of the war, for without those girls taking the place of the men, boy, you wouldn't even start this job. If you want to give the bosses a nightmare, just mention working under present-day conditions without 'em.'"

- Charles DeVon, Hanford employee quoted in "The Sage Sentinel" (October 20, 1944)

"This is the view of officials trying to evaluate the possible effects of the terrifying new weapon – both on bringing this war to an early end on shaping the world of tomorrow."

- *Spokane Daily Chronicle*, August 7, 1945, in "Defense Plans Likely to Be Revolutionized"

# 📖 Read to Connect

## Reading 1: Workers at the Hanford Site

By Sarah Nestor Lane

*Teacher Tip: For another lesson on women at Hanford, see Boxed In: The Women of Hanford, Washington - Teachers (U.S. National Park Service) (nps.gov) . It is recommended that students complete this reading in partnership with the readings in Lesson 2 to have more information about the segregated Hanford workforce.*

Workers came from all over the country to Hanford, Washington. However, it's important to know that much of the work at Hanford was shrouded in secrecy, and many workers didn't fully understand the project's purpose in the Manhattan Project, or its long-term consequences. The combined efforts of all the workers at Hanford made it a busy place during the war, and their hard work contributed to the success of the project, which had a significant impact on ending the war.

Building the site involved construction workers who built the reactors, plants, and storage facilities needed for the plutonium production at the Hanford Site. They faced tough conditions like bad weather and tight deadlines. There were segregated labor units, and African American men were often restricted to construction or custodial work.

There were a variety of opportunities for women from office work to patrolwomen and more *(see Reading 2)*. Hanford also had about sixteen to twenty-four WACs (Womens Army Corps). This was the smallest number among the three Manhattan Project sites (Oak Ridge and Los Alamos are the other two). However, African American women also had to work in segregated positions such as custodians.

Scientists and engineers were responsible for designing and overseeing how the reactors and plants worked. These scientists were doing cutting-edge research in nuclear science and engineering. There was only one female physicist working on the project: Leona

(Woods) Marshall Libby, a 24-year-old who moved to Richland with her husband and baby. She was the only woman working at the B reactor. (A women's bathroom was even constructed just for her!) Leona was there on September 26, 1944, when the B reactor turned on for the first time but failed. She helped them reach the solution. Eight months later, the U.S. dropped an atomic bomb on Nagasaki, Japan. This bomb contained plutonium from the Hanford Site. The bomb caused mass devastation, killing and wounding thousands of Japanese civilians. Six days after, the war ended.

## Reading 2: Women in "The Sage Sentinel"

Friday, October 20, 1944 Edition ["The Sage Sentinel" was published by and for employees of Hanford Engineer Works (H.E.W.) in Richland.]

### Excerpt 1: "To the Women"

Throw away those old cliches about the weaker sex—stop them there wolf-calls—take off that shiney [sic] hard-hat: it's time to pay tribute to the war-time women—H.E.W. model.

War worker or war wife, she lives in a man's construction world -- "unwept, unhonored and unsung." She's hard-working, uncomplaining—keeps up her own morale and that of her fellowmen. She's a proud and efficient worker – fitting her skills into whatever job she's called on to do. And she's pretty and attractive besides.

These and many more are the virtues of the composite woman of H.E.W. An orchid to every one of them on the job—whatever they may do.

To them, this issue of The Sage Sentinel is dedicated. To the women—yes!"

### Excerpt 2: "Woman's Place at H.E.W. is In a Variety of Skilled Jobs"

It was during the last war that the office-wife had her inception. And the yeomanettes were born, remember? But it was long before either of these that the 'emancipation' of women started. There was a gal named Amelia Bloomer who had ideas and displayed them to all and sundry, amid the cat-calls and hoots of the superior males. There was nothing of the two-tone 'wolf-call' of the present in the howls that followed her trousered legs down the street. It was the Bronx cheer, of an early vintage. Little did they know. And Carrie Nation, and Frances Willard and Clara Barton. And before them all, Florence Nightingale, who tucked up her skirts and fought infection and male prejudice through the Crimean war. And won. . .

The daughters of these pioneering ladies, daughters of the ones who had no 'head for business' are serving in such capacities on this project that, without them, there would be no project! Why, we've even got women patrolmen—does that read funny? Yet it's true.

They drive shuttle busses, are in the fingerprint division, serve as trainers in J.I.T., are junior supervisors, investigators and have invaded man's last holy precinct, the 'field' where they serve quite competently.

Our lady workmen serve as counselors, nurses, dieticians, telephone operators—everywhere. And then there are the WACs. These girls, the lady soldiers, are doing a job that have the old-time 'line' officers mumbling in their beards in wonderment at the delivery given by their pink-nailed fingers, and the thought that emanates from behind their pertly-plucked brows. There is no job that calls for finesse, detail or dexterity at which the women can't match the men. They are working as draftsmen and turn out beautifully accurate work. As mail-clerks, in the restricted photographic darkrooms—and it's a lady you must see before crossing the threshold of the supervisors. Trust in them is unbounded.

"No head for business!" Whoever coined that one certainly was a screw-ball. It's probably a lady who hands you your pay-check—certainly one who figures it. In the service departments around the reservation, women are everywhere. Mix your drinks at the fountains, take your laundry, weigh your groceries, bank your money, sell you bonds, answer your questions at the Information Desks, serve you beer, and, if you're lucky, give you a date. . .

Sometime, look at the lady who serves you in the mess halls, look and think where she's from and why she is in Hanford, doing her untrained best for her country. And generally you'll find character writ on her face, and if asked she may release a torrent of reasons why she is serving an essential workman. It is from such strong, firm hearts as these that comes from the strength that manifests itself on the battlefields of France and the South Pacific. These little ladies with the gray coming in are great soldiers!

On our project there are ladies who are as widely diversified in their beliefs as they are in their work, yet all have a single aim. Each plays her individual role in winning this war. And that, of course, is democracy!

## Questions for Reading 1, 2, and Photos 15-17

1. In what ways did workers at Hanford contribute to the war effort, and how did their combined efforts impact the project's success?
2. How were African American workers treated differently?
3. What are some of the roles and jobs women were doing at Hanford during World War II?
4. How did the perception of women's abilities and roles change over time, as described in Reading 2?

5. What is the overall message the author is trying to convey about the importance of women's contributions to the war effort in Reading 2?
6. *Optional:* Research the women named in the first paragraph of Reading 2. What do these women have in common?

## Photos

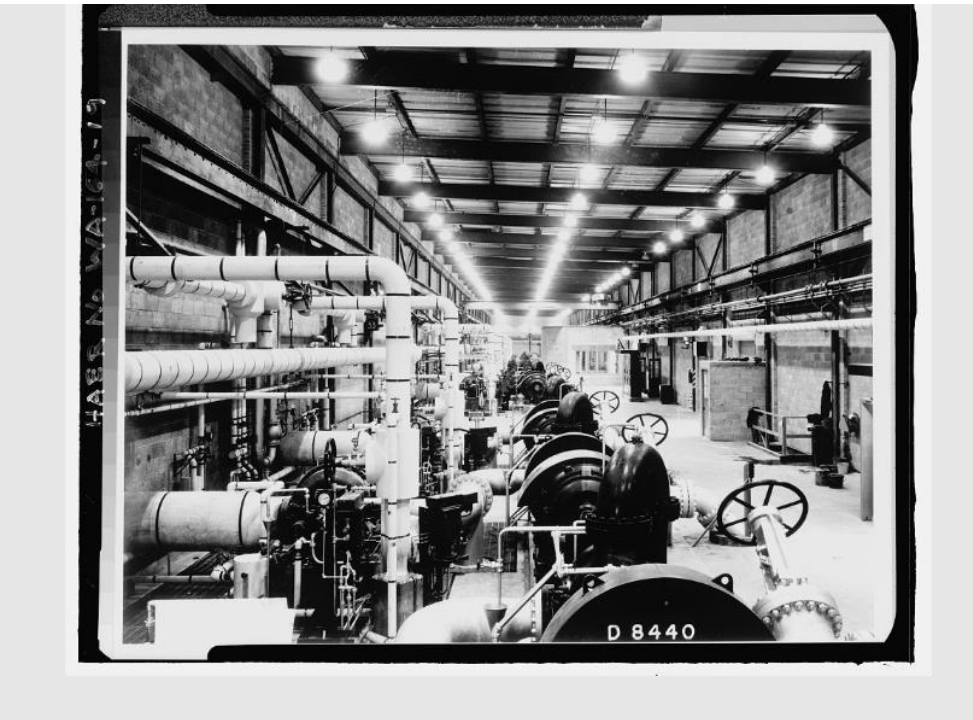


*Figure 18: "Interior of the 190 Process Pump House, in this case in the 100-F Area in February 1945. Steam-driven pumps are on the left and electrically-driven pumps are on the right." (Credit: Library of Congress)*


*Figure 19: "Don't Open the Book with Careless Conversation," a poster for Hanford employees (Credit: Washington State Historical Society)*

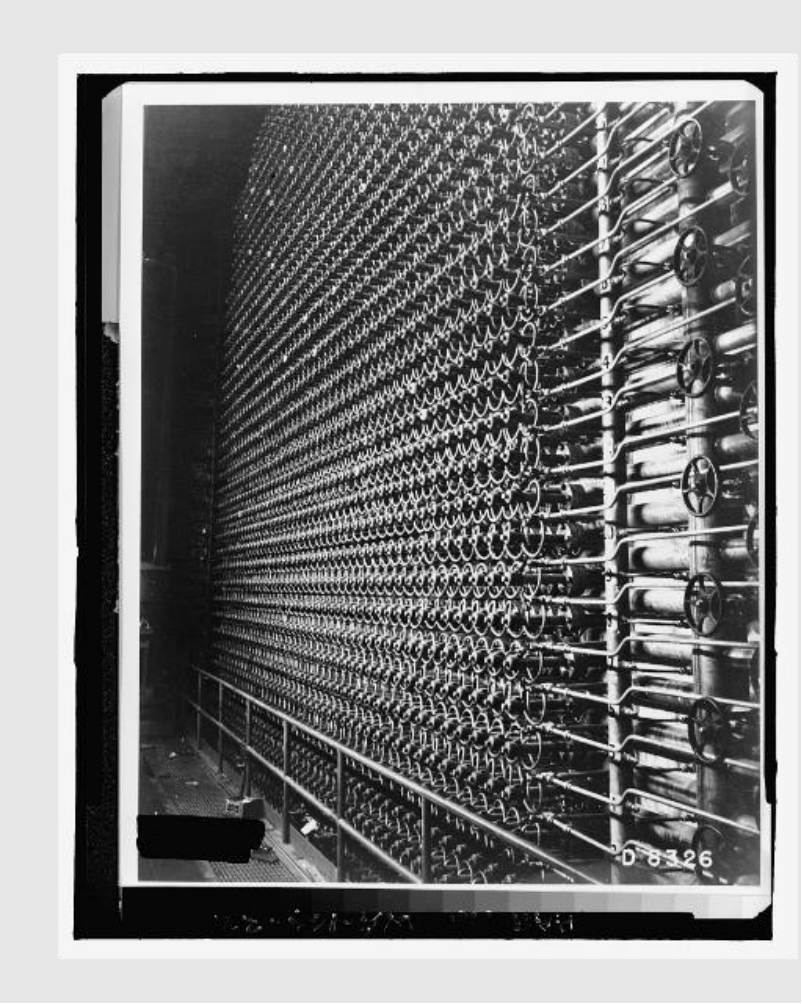


*Figure 20: "A side-view of the rear face of a typical pile, in this case the F Reactor in February 1945. The low railing and walkway are part of the discharge elevator. Notice the vertical row of numbers on the right that identified the rows of process tubes." (Credit: Library of Congress)*

## Reading 3: "'Eleven Ghosts' Left at Hanford; Richland Folk Still Won't Talk Much"

*The Spokane Chronicle*, August 7, 1945, pp. 1-2

RICHLAND, Wash., Aug. 7. (United Press)

. . . Completion of the Hanford atomic bomb materials plant, 26 miles north of this headquarters city, was achieved exactly on schedule on February 10, 1945, army engineers revealed today.

'That date marked the close of one of the greatest construction jobs of our time,' Lt. Col. Benjamin T. Rogers, 52, chief of construction, declared. He said not 1 percent of the people employed here had any idea of what was going on.

"It's atomic bombs." That was the boxcar headline in the little Richland weekly newspaper yesterday that broke the big news to the 17,000 residents of this village who work at the Hanford engineering project where the previously top-secret weapon is made.

But the habit of secrecy was so strong among them that some 40 newsmen who arrived last night even had difficulty getting street directions.

Richland residents, even though they knew little about the nature of their own jobs, had been warned repeatedly against discussing the project and elaborate typewritten instructions to visiting newsmen officially forbade interviews with them. So thorough was the cooperation that the night clerk in the town's transient quarters where reporters were billeted refused to give even his last name. His first name is Dell, but that's all he would say. 'I've been secretive for two years," he said. 'Why should I change now?" ... The news was received here with enthusiasm, but residents seemed to feel that some of the excitement of living here was gone with the secret.

Before the army moved in three years ago, Richland was a peaceful wide spot in the road with 250 inhabitants. A general store and a service station – and not much else. Now it has neat streets, comfortable homes, a bright Neonlighted shopping district and 68 times more people. . ."

### Questions for Reading 3 and Photos

1. When was the completion of the Hanford atomic bomb materials plant achieved, and what significance does this date hold?
2. How did some residents of Richland react to the news about the atomic bombs being made at the Hanford engineering project?
3. How has the town of Richland transformed over the past three years, and what were some of the changes brought about by the construction of the Hanford Site?
*4. Optional*: Connect and compare this reading on secrecy to an additional one that was employee-facing at Hanford: "Safeguarding information is important" on page 1 of "The Sage Setinenal." (January 28, 1944)

## Extension Activities

### 1) Videos

The following videos connect to the workers' experiences at the Hanford site, and can be used to supplement the readings:

- "Hanford Made" (U.S. National Park Service) (14:26)

- "A Day's Pay" (U.S. National Park Service) (2:11)
- "Calutron Girls" (U.S. National Park Service) (2:20)
- "Ranger in your Pocket" Virtual Tour videos (Atomic Heritage Foundation)

## 2) The Hanford Site and the Environment Today

Consider the impacts of history and scientific development on the community today: *What effect did the site have on the surrounding environment? How is the site used today?*

1) Read this excerpt from "Up River Residents Not to be Required to Move as Soon as was First thought Necessary." It was published March 18, 1943 in the Kennewick Courier-Herald.

"Rumors that the federal government has condemned large additional tracts of land in South Central Washington, were today proven false by a statement from the office of Lt. Col. Franklin T. Matthias, area engineer in Pasco, for the U.S. Army Engineers. Col. Matthias declared that this project would require only the release of certain additional land and except for a few isolated instances no land would be condemned.

But notice was given that the acreage for which condemnation proceedings have already been filed is virtually all the land the government planned to purchase for the project scheduled in the area of the small farming community of Richland, Hanford and White Bluffs."

2) Research the short- and long-term environmental impacts of the Hanford Site. Here are some potential resources to get started:
    a. Hanford Nuclear Site | Hazardous Waste | Damage Assessment, Remediation, and Restoration Program (noaa.gov)
    b. Hanford cleanup - Washington State Department of Ecology
    c. Karen Dorn Steele (U.S. National Park Service) (nps.gov)
    d. A tale of three cities...and a river runs through it | Daniel Noonan | TEDxYakimaSalon - YouTube

3) Create an informational pamphlet, poster, or social media post to share about the long-term impacts of the Hanford Site projects, and what can be done to support environmental progress.

Transcript: The Sage Sentinel. January 28, 1944.

"Safeguarding Information is Important."

Employees of the Hanford Engineer Works are again cautioned as to the importance of safeguarding information.

Every little rumor you repeat is destructive—every guess, every story about 'what happened at work today,' regardless of how trivial it may seem to you.

Remember that in this war, enemy agents work by a "bits and pieces" system of assembling important information, from many scraps of what appear to be harmless facts.

Each one of us can take genuine pride in having passed the intensive investigation necessary in order to be a Hartford employee. No good American would intentionally betray that trust but a careless one might do it without realizing the harm he was causing.

Help safeguard information in every way. Protect your badge; the loss of it might enable someone to gain entrance here who should not be admitted. Obey the rules which have been set up on your job to prevent disclosure of information to those who are not entitled to it. Report anything suspicious to your superior, or to the military intelligence office, and not to anyone else.

Victory depends on the trustworthiness of those in the armed services and those working on war projects. Don't jeopardize it by thoughtlessness

# Lesson 4: Tri-Cities, Washington: Comparing and Connecting WWII Home Fronts

## About this Lesson

This lesson is part of a series teaching about the World War II home front. Tri-Cities, Washington (Kennewick, Richland, Pasco, and surrounding areas) is an American World War II Heritage City. The lesson contains photographs, reading, and primary sources, with an optional activity, to contribute to learners' understandings of the area as a WWII Heritage City. It combines lesson themes from the three other lessons in the collection to summarize the city's contributions and encourage connections to the overall U.S. home front efforts.

## Objectives:

In a culminating product:

a. Identify important World War II location(s) in Tri-Cities, Washington, and describe their historical significance
b. Summarize the contributions of Tri-Cities, Washington civilians and service members to home front wartime efforts
c. Evaluate the short- and long-term impacts of the contributions of the Hanford Site and The Manhattan Project
d. *Optional:* Describe similarities and differences of Tri-Cities, Washington and other Heritage city(s) / World War II home front(s)

## Materials for Students:

1. Photos: Figures 21-25 *(can be displayed digitally)*
2. Readings 1, 2, 3
3. Maps, project materials (as needed)
4. Student graphic organizers (See Figure 25 at end of lesson, for reference)
    - Create Comparison Matrices for your students to use. To compare two cities, create a one-page sheet with three columns and four rows. Label the left

column Theme/Topic and the other columns City 1 and City 2. For a Comparison Matrix for three cities simply add an additional column.

- Create two Single-Point Rubrics to assist students' self-assessment. One is for assessing proficiency in meeting teacher-selected standards. One is for assessing proficiency in meeting objectives.
- For the rubric on standards, create a one-page sheet with three columns and four rows of content. Label the first column "Areas for Improvement," the second column, "Proficient (Meeting Standard)," and the third column, "Areas of Exceeding Standard." Leave the first and third columns blank. In each row of the second column identify a Standard and indicate a space for noting the evidence for meeting the standard. Include a space at the bottom of the page for assigning points for each column.
- For the rubric on objectives, create a one-page sheet with three columns and four rows of content. Label the first column "Areas for Improving toward Objective," the second column, "Proficient (Meeting Objective)," and the third column, "Areas of Exceeding Objective." Leave the first and third columns blank. In the four rows of the second column identify these four objectives:
    a. Objective: Identify important World War II location(s) in Tri-Cities, Washington, and describe their historical significance.
    b. Objective: Summarize the contributions of Tri-Cities, Washington civilians and service members to home front wartime efforts.
    c. Objective: Evaluate the short- and long-term impacts of the contributions of the Hanford Site and The Manhattan Project.
    d. Objective (Optional): Describe similarities and differences of Tri-Cities, Washington and other Heritage city(s) / World War II home front(s)

Include a space at the bottom of the page for assigning points for each column. See the last photo of this lesson for reference.

## Getting Started: Essential Question

Why was the Tri-Cities, Washington region chosen as an American World War II Heritage City, and what are its similarities and differences to other home front cities?

# Photos

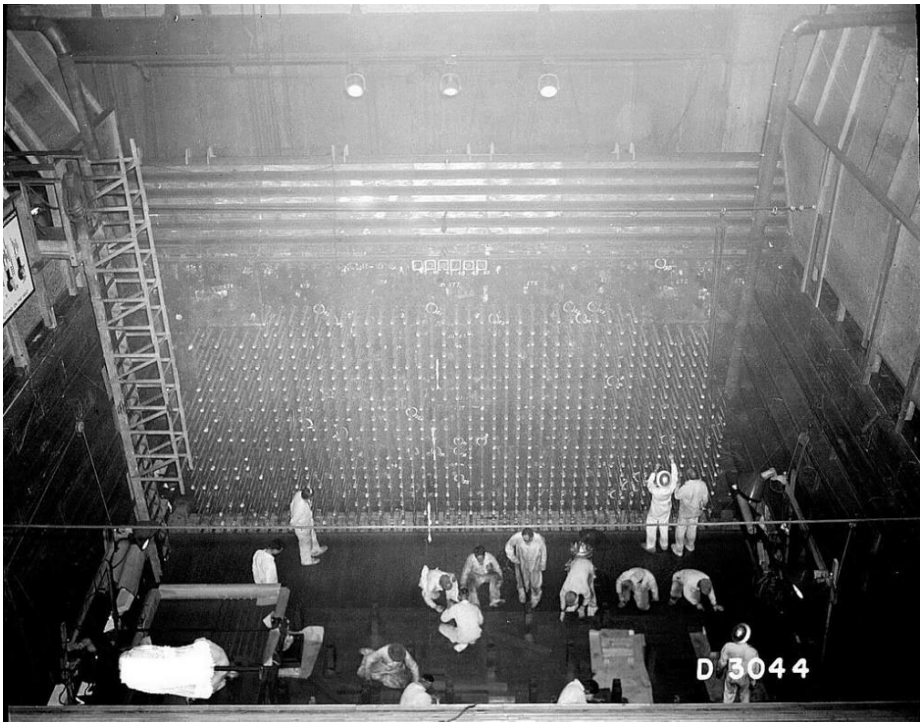


*Figure 21: The B Reactor at the Hanford Site, where uranium was converted to plutonium. It was built from June 1943 to September 1944.*

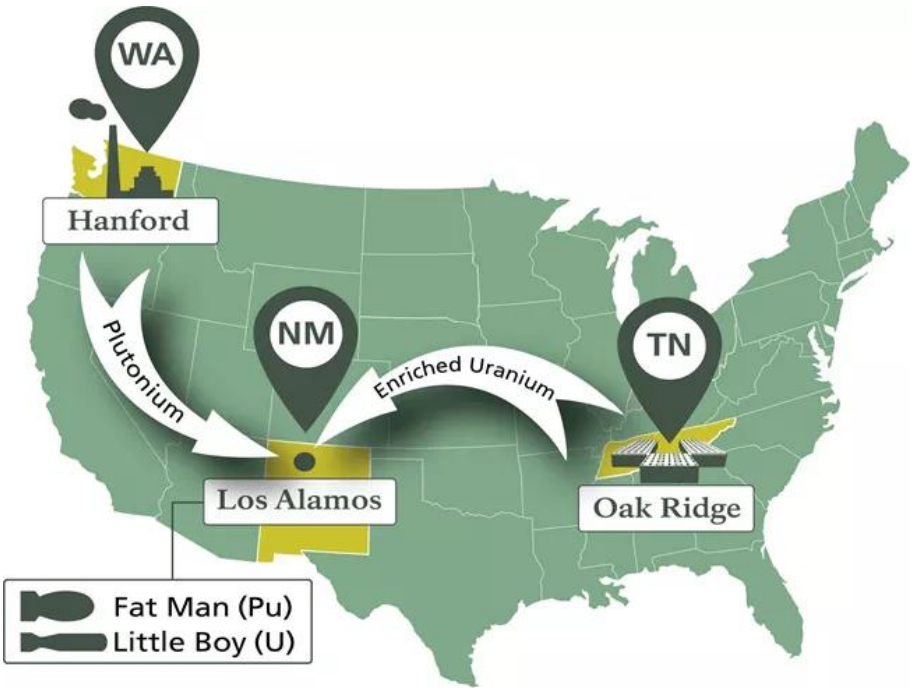


*Figure 22: A map showing the locations of The Manhattan Project and the flow of plutonium from Hanford, and uranium from Oak Ridge to Los Alamos to create the atomic bombs. (Credit: National Park Service)*

## Quotation to consider:

"Out in Washington state another 'secret city' blossomed where the little sagebrush hamlet of Richland passed its tranquil days. In Washington state also approximately a half-million acres were taken into the development."

- *The Spokesman-Review*, August 7, 1945, p. 10

# Read to Connect

## Reading 1: The Manhattan Project and the Hanford Site (Overview)

*By Sarah Nestor Lane*

The purpose of the Manhattan Project was to develop the first atomic bomb during World War II. It was a top-secret research project led by the United States, with the goal of building a powerful weapon before Germany or Japan could. The project aimed to harness the energy of nuclear reactions to create a devastating weapon that would help bring an end to the war.

The Hanford site made important contributions to the Manhattan Project during World War II. Workers lived in the surrounding areas of Kennewick, Richland, Pasco, and throughout the region in Washington, and traveled to the Hanford site. The site played a crucial role in developing and producing plutonium for the atomic bomb. Scientists and workers at Hanford worked to extract plutonium from uranium in a process called "nuclear fission." Plutonium is a heavy metal that can release a lot of energy when its atoms split apart. Scientists combined materials in a way that created a chain reaction, where the splitting of one atom led to the splitting of more atoms, releasing a huge amount of energy. The work done at the Hanford site was top secret and greatly aided in the success of the Manhattan Project. Workers often did not know the overall project they were contributing to.

The bomb "Fat Man" was created using plutonium from the Hanford site. This bomb was dropped over Nagasaki, Japan. The explosive force yield was approximately 20,000 tons of TNT. Thousands of Japanese civilians were killed or suffered from injuries or exposure to radiation.

The Manhattan Project National Historical Park is comprised of three sites: Los Alamos (New Mexico), Hanford (Washington), and Oak Ridge (Tennessee). Each had its own part in developing the atomic bombs.

### Questions for Reading 1 and Photos

1. What was the main purpose of the Manhattan Project during World War II, and why was it considered a top-secret research project?
2. How did the Hanford site contribute to the Manhattan Project, and what role did it play in the development of the atomic bomb?

## Reading 2: Newspaper Excerpts

Both excerpts are from the August 7, 1945 morning edition of *The Spokesman-Review* (Spokane, WA)

### Excerpt 1: "Atomic Bomb is Perfected at Hanford in Gigantic Gamble": 'Biggest Story' of War Creates Busy Scene at Plant Site

By Charles R. Stark Jr.

"HANFORD PROJECT HEADQUARTERS, RICHLAND, Wash., Aug. 6—Western Union men are tonight hastily rushing cables and wires, with frantic calls going out for operators from Spokane, Seattle, and Portland, to handle the breaking of what military authorities here describe as the biggest story of the war.

Hanford's secret, the best kept since Pearl Harbor, is no longer a secret. Washington has given out some of the details of what has been going on here. The rest will be broadcast to the world be the army public relations office here tomorrow and Wednesday, with possible angles taking two days more.

When I say it has been hush-hush, I mean exactly that, for it is still hush-hush as far as the general public is concerned. If you don't believe it, try and find your way down here without taking a detour or two on the way. I'd never been here before and I sure found the detours. . . ."

### Excerpt 2: "Secret of Hanford Long and Well Kept"

Millions knew that something strange and fantastic was being made at Hanford. Hundreds of thousands either participated in construction of the plant or were in almost daily contact with stream of workers and materials that went into the project. Not more than a dozen men, Col. Franklin T. Matthias said two years ago, had more than an inkling of what was actually being done.

Yet doubts will always remain as to whether the manner in which the "hush-hush" policy was applied was applied [sic] was the most effective that could have been used. Some

contended, and may always content, that the whole project might better have been described as merely "another munitions plant," without the elaborate and self-defeating efforts to keep the mere existence of the enterprise a secret.

People know that wars require munitions, that munitions have to be prepared, and that an element of secrecy surrounds all military installations. It seemed to many that the efforts to keep all mention of Hanford out of the public press merely whetted the public's natural curiosity; while the phrase 'mystery plant,' to which the war department objected, was a natural outgrowth of the artificially stimulated interest.

Now the story is being told, as some day it would naturally have to be. The fact the secret has been kept so many years is a tribute to the cooperation of workers on the job, residents of the surrounding area, and the news writers of both the printed word and radio, who generally followed the request of the army in keeping discussion of the project at a minimum and in releasing only such details as clearly did not affect the public security.

No person traveling through south central Washington could possibly miss some phase of the Hanford project. The little town of Richland spread out until it could be seen for miles along the main road between Pasco and Yakima. Trains for months were full of workers coming to the job, and trains and buses carried almost as many thousands elsewhere.

Men and women in every state of the Union, and on the several war fronts, will read the revelations about Hanford with interest, and say to their neighbors, 'I was there back in 1942. I had a real part in building that plant and keeping that secret; as a matter of fact I never did discover what it was all about, but by putting two and two together.'"

### Questions for Reading 2 and Photos

1. *Excerpt 1*: What event is being referred to as "the biggest story of the war"?
2. *Excerpt 2*: Why may some people have believed that the "hush-hush" policy at Hanford might not have been the most effective approach?
3. How do the authors of both excerpts convey the level of secrecy surrounding the Hanford Project headquarters?

## Reading 3: Heritage City Designation

**Excerpt from**: "House Report 115-998, *"To Direct the Secretary of the Interior to Annually Designate at Least One City in The United States as An 'American World War II Heritage City,' and for other purposes" (October 30, 2018)*

". . .PURPOSE OF THE BILL

The purpose of H.R. 6118 is to direct the Secretary of the Interior to annually designate at least one city in the United States as an ` ` American World War II Heritage City''.

BACKGROUND AND NEED FOR LEGISLATION

On December 7, 1941, military forces of the Empire of Japan attacked the U.S. Naval Fleet and ground bases at Pearl Harbor in Hawaii. On December 8, 1941, one day after what President Roosevelt referred to as, “a date which will live in infamy,'' the United States declared war against the Empire of Japan. Three days later, on December 11, 1941, Japan's ally, Germany, declared war on the United States. Sixteen million Americans, mostly young working-age men, served in the military during World War II, out of an overall United States population of 113 million.

While an unprecedented number of Americans served in World War II, the country drastically increased its war production on the home front, serving not only the needs of the armed forces of the United States but her allies as well--in what President Franklin Roosevelt called “The Arsenal of Democracy.” The combination of millions serving in the military, during a period of necessary and drastic increases in production, led to significant social changes on the American home front.

The World War II period resulted in the largest number of people migrating within the United States in the history of the country. Individuals and families relocated to industrial centers for good paying jobs out of a sense of patriotic duty. Many industrial centers became “boomtowns,” growing at phenomenal rates. One example, the City of Richmond, California, grew from a population of under 24,000 to over 100,000 during the war. . . .”

## Questions for Reading 3

1. What was the purpose of the bill (H.R. 6118) according to the report?
2. Why do you think Tri-Cities, Washington was designated as a World War II Heritage City? Use details from the bill and from the lesson(s) information.
3. Are there other cities you think of when considering home front contributions during wartime? Which, and why?
4. *Optional:* How did other home front actions in the Tri-Cities area, apart from the Manhattan Project, contribute to their impact during that time?

# Photos

*Figure 23: B-Reactor, 1945, source of the plutonium used for the "Fat Man" bomb dropped over Nagasaki, Japan. (Credit: Washington State University Tri-Cities, Hanford History Project Photo Gallery)*

*Figure 24: The B-Reactor today, where the Department of Energy conducts tours (Credit: NPS/Burghart)*

# Culminating Activity/Mastery Product

To demonstrate student understanding, support students in creating a final product that meets the following objectives:

a. Identify important World War II location(s) in Tri-Cities, Washington, and describe their historical significance
b. Summarize the contributions of Tri-Cities, Washington civilians and service members to home front wartime efforts
c. Evaluate the short- and long-term impacts of the contributions of the Hanford Site and The Manhattan Project
d. *Optional:* Describe similarities and differences of Tri-Cities, Washington and other Heritage city(s) / World War II home front(s)

## Mastery products should be:

. . . **student-led**; Students work as individuals or in collaborative groups.

. . . **student-directed**: Students are offered a variety of choices for product type.

. . . **student-organized**; Teacher facilitates by providing students with the comparison matrices and/or resource links from throughout the series of lessons.

. . . **student-assessed**; Teacher supports student self-assessment and reflection by providing students single-point rubrics to assess for meeting standards and/or lesson objectives.

Note: Depending on time and scope, the comparison of Tri-Cities to another WWII Heritage city(s) within the mastery product (objectives) may be omitted. However, comparing cities is recommended, as it connects students to a deeper understanding of the WWII home front.

## Examples of mastery product choices include, but are not limited to:

- **Written**: Letter (opinion or informative), essay, poem, narratives, biography, articles, class book or children's book, speech or debate (then presented orally), blog / website, plaque or historical displays, pamphlets or rack cards
- **Graphic Organizers**: timeline, flowcharts, mind or concept content maps, Venn diagrams, comparison matrices, posters
- **Artistic Expression**: song, dance, theater (ex. skits), 3-D models, dioramas, photo journal, stamp and coin designs, visual art, architecture/building or monument, museum design

- **Media design and creation:** podcast, historical markers, social media content, interactive virtual maps or tours, infographics, video, comic strips or graphics, game design, slideshows, digital scrapbook

Please view the NPS Heritage cities lesson collection for information and resources on other cities.

## Single-Point Rubric

| Areas for Improvement | Proficient (Meeting Standard) | Areas of Exceeding Standard |
|---|---|---|
| | **Standard:** _____<br>Evidence of meeting standard:<br>• | |
| | **Standard:** _____<br>Evidence of meeting standard:<br>• | |
| | **Standard:** _____<br>Evidence of meeting standard:<br>• | |
| | **Standard:** _____<br>Evidence of meeting standard:<br>• | |
| **Points** | | |

*Figure 25: Single-Point Rubric (Standards; Blank) [Teacher selects priority standards for assessment.] Courtesy of Sarah Nestor Lane*

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