Whatcom Creek Pipeline Explosion

A Decade of Healing

June 10th, 1999 – June 10th, 2009

Whatcom Creek near Middle Falls, 2009. Photo courtesy of Emily Linroth.

Whatcom Creek Pipeline Explosion: A Decade of Healing

Two major arteries flow through the heart of Bellingham, intersecting at its center. One is Whatcom Creek, rippling with salmon and echoes of laughter as it glides from the city's drinking water source west through Whatcom Falls Park to Bellingham Bay. The other is the Olympic Pipeline, weaving south through neighborhoods and the park, carrying millions of gallons of gasoline, diesel and jet fuel every day to waiting automobiles and airplanes from Ferndale to Portland.

On June 10, 1999, these two arteries met. At 3:30 p.m., the Olympic Pipeline ruptured, saturating Whatcom Creek and nearby tributaries with approximately 237,000 gallons of gasoline. It flowed from the rupture site near a water treatment plant at the southeast end of the park one and a half miles downstream nearly to the Interstate-5 overpass above Iowa Street, clouding the water and air with choking fumes.

Liam Wood, who had graduated from Sehome High School four days before, was flyfishing in his favorite spot. The vapors overwhelmed him and he fell into the creek and drowned.

Just after 5 p.m., Stephen Tsiorvas and Wade King were playing with a butane lighter in the safest place they knew: the banks of the creek. With one flick, the vapors ignited with a thundering crack, engulfing the two 10-year-olds and sending a fireball ricocheting up and down Whatcom Creek. Flames swallowed the creek as pockets of gasoline created successive explosions, and a billowing black cloud rose six miles into the air. The two boys were airlifted to a Seattle hospital and died the next day.

"I stepped outside and I thought it was an airplane crash," said Wayne Landis, director of Western Washington University's Institute of Environmental Toxicology, who lives about a mile from the park. "But then branches and leaves were falling, and they were still burning."

After burning strong for about an hour, the fire smoldered, and the black cloud dissipated. Ash snowed over the silent city as Bellingham reeled at the loss of three young men and all the life in Whatcom Creek.

"The creek was just this gassy kind of milk color, and there were dead fish floating in it," said Carl Weimer, executive director of the Pipeline Safety Trust, who was working downtown at the time of the explosion.

Over the following weeks, the City of Bellingham worked with the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, the Department of Ecology, the Lummi Nation and the Nooksack Tribe to assess the damage and begin remediation.

"There was a whole group of people at the table initially, and that was a big help in the coordination process," Landis said. The city contracted Landis and several others from Western's Institute of Environmental Toxicology to analyze initial water and sediment samples and provide advice on short-term remediation.

The group was surprised to find gasoline still in the creek sediment.

"Gas floats, so usually you don't get gas in sediment," Landis said. He theorized the explosion may have caused the water to burn off, and the concussion created enough pressure to force the gasoline into the sediment.

"It's not clear how long material like that [gasoline] can last. You don't often have occasions where an explosion happens above ground," Landis said.

Initial efforts focused on making sure the levels of gasoline in the creek were at low enough concentrations that they wouldn't harm the fall run of salmon arriving in a few months. Even though the creek wasn't toxic to the returning salmon, all their spawning grounds were initially destroyed.

"Everyone understood that that spawning year would be lost because there was nowhere to spawn," Landis said.

After the city determined the burn zone was safe to enter, the community was allowed limited access to view the park. The sight was unreal.

"The soil and the rocks looked like they'd all been burned," Weimer said.

Restoration experts were hired to replant the burn zone, and the community came together and began replanting areas downstream. Approximately 26 acres of vegetation were destroyed by the fire.

"Everybody wanted to do something that would help make things right, and the creek was an ideal place," Weimer said. Remarkably, some species returned to the banks of the creek almost immediately, and one year later, plantings took hold and began growing up between burned stumps.

With the restoration of the park, the community began a slow recovery. The families worked with the city and the newly established Pipeline Safety Trust (which grew out of the local watchdog group SAFE Bellingham) to push for stronger pipeline legislation throughout the country.

The King family made significant donations to both Western and the Bellingham School District, and in recognition of their generosity a Bellingham elementary school and the new recreation center on Western's campus were named in honor of their son. Wood's parents started the Liam Wood Flyfishing and River Guardian School to honor their son's love of flyfishing by teaching the sport to the greater community. A class open to Western students and the greater community called the Art, Science and Ethics of Flyfishing uses flyfishing as a metaphor for life and educates people of all skill levels about conservation.

Money from settlement with the Olympic Pipe Line Company went toward restoration projects throughout Bellingham, as well as improvements within Whatcom Falls Park.

Leo Bodensteiner, an associate professor of environmental science at Western who teaches the Art, Science and Ethics of flyfishing, was impressed with many improvement projects, especially one of the channels near where Racine Street nears the north side of the creek.

What Happened June 10, 1999

Olympic Pipeline This tragedy occurred because of a series of problems with the pipeline and its operation and maintenance. If any one of these problems had been corrected in a timely manner, the tragedy would not have occurred. The problems included:

- In 1994 while doing work on the water treatment plant, the pipeline was struck by heavy equipment, leaving a dent and gouge in the pipeline. The equipment operator and construction company never reported striking the pipeline. This is the spot the pipeline burst.
- Olympic Pipe Line Company did not provide adequate oversight and inspection of the construction work going on to prevent or know about such a dent.
- Olympic Pipe Line Company learned about the dent through an internal inspection of the pipeline but did not dig the pipeline up to inspect or correct the problem.
- Olympic Pipe Line Company did not adequately test safety devices at their Bayview facility or correct the block valve there that had closed unexpectedly many times in the previous months. The closure of this valve on June 10 caused the pressure increase in Bellingham, which caused the pipeline to burst at the dent.

Photo courtesy of the Department of Ecology.

The blast crater where the pipeline ruptured and the gasoline poured out of the ground. The building on the left of the photo is part of the water treatment plant.

- Olympic Pipe Line Company's pipeline monitoring computers failed at a critical time on June 10 in part because of company practices. If the computer system had not gone down, the pipeline operators may have been able to prevent the rupture, or at least reduce the amount of gasoline spilled into Whatcom Creek.

In the end, the Olympic Pipe Line Company and its owners were fined or paid for damages in excess of $100 million, and for the first time ever pipeline employees were sent to jail for their failure to ensure a safe pipeline.

by Carl Weimer, Executive Director of the Pipeline Safety Trust

Whatcom Creek Pipeline Explosion *(continued from page 2)*

"Before, it was bare, just totally black, and if you look at it now there's (sic) trees coming in probably 15 feet tall," Bodensteiner said. "I think lots of good things came out of it [the recovery], and that's just because of the people involved."

A decade later, charred remains of Douglas firs stand like sentinels in a ravine northwest of the rupture site. Blackened from root to tip, they pierce the view of otherwise green vegetation. Parts of the park are still off-limits to visitors. Crisp white markers with red warning lettering trace the path of the Olympic Pipeline, still in operation, across the creek and through the park.

"Even though it looks good, there's (sic) still pretty strong indicators of how degraded it is," said Bodensteiner. "Not just a fire destroyed Whatcom Creek, but the fact that it's in the middle of a city...it's got all kinds of impacts."

Chemicals from the rupture are still being removed from the groundwater to prevent them from contaminating the creek. New generations of salmon, insects and Bellingham residents flock to the park at the heart of the city, many unaware of the tragedy recorded in the burned snags and the memories of those who witnessed the smothering black cloud.

"I don't think you can ever actually heal from it. I think the community takes a lesson from it," Bodensteiner said.

One lesson is awareness. People now have access to information telling them where pipelines are and what they transport, through outlets like the Pipeline Safety Trust, Weimer said.

"Most of the people you talk to, whether or not they think we should have moved on by now, were pretty proud of how Bellingham reacted," Weimer said. "In many ways we stood up to the industry and the federal government."

Other lessons are learned through metaphor, as with flyfishing. And some are learned through tragedy, as when a community loses innocence and rises from the ashes to recover together.

"If you get a wound, you get a scar," Bodensteiner said. "I guess you heal in one sense, but it leaves a mark. It changes things. You recover, but you recover with change."

Written by Emily Linroth
This story also appeared in the June 2009 issue of Whatcom Watch under the title "Ten Years Later: Whatcom Creek Recovery."

Improvements in Pipeline Safety

A few days after the explosion, Olympic Pipe Line announced they would soon have their pipeline repaired and put back into service because fuel was needed, especially by SeaTac Airport. Since the cause of the pipeline failure was not yet known, restarting the pipeline made little sense to many in Bellingham. The City of Bellingham and a quickly-organized citizen group, SAFE Bellingham, began researching how pipelines were regulated, who had authority, and whether it was safe to put the pipeline back into service.

The Office of Pipeline Safety, a small agency within the U.S. Department of Transportation, has nearly complete authority over the regulation and operation of transmission pipelines, like the one that caused the tragedy in Whatcom Falls Park. The initial efforts of the City of Bellingham and SAFE Bellingham brought numerous pipeline concerns to light. The pipeline remained shut down for one year and eight months, the longest closure of a pipeline after an incident in U.S. history.

When the pipeline tragedy happened in Bellingham, pipeline companies were not required to inspect a pipeline after putting it in the ground. If a company did inspect its pipeline, there were no regulations requiring any action based on the findings. It wasn't required that maps of pipelines be available to local government or that enforcement records of pipeline companies be made easily available to the public. There were no regulations defining how control rooms were managed, or protecting whistle blowers within pipeline companies. Fines were low, not used very often, and there was no independent organization ensuring pipeline companies and regulators did what they were supposed to. There was only very limited pipeline incident data available to the public, and what was available was often incorrect or meaningless.

Since our pipeline tragedy, most of the above pipeline safety deficiencies have been corrected. Based largely on the Bellingham tragedy and efforts started here in Bellingham, Congress passed two major pipeline safety bills after 1999. The federal Office of Pipeline Safety has been held accountable, and the culture within that organization has changed dramatically toward ensuring safe pipelines in communities nationwide. Maps, incident and enforcement data, and a national call before you dig number (811) have all become easily accessible throughout the country. And the Pipeline Safety Trust, still based right here in Bellingham, was started with $4 million of the criminal settlement in this case to watchdog the industry and regulators to help ensure tragedies like Bellingham do not happen again.

We should all be proud of this positive outcome from such a terrible disaster, although there is still more to do.

Written by Carl Weimer,
Executive Director of the Pipeline Safety Trust
For more information,
see the Pipeline Safety Trust's web site
at http://pstrust.org.

Improvements to Emergency Response Procedures

Emergency Response On June 10, 1999, I was a fire captain/paramedic and the Fire Department public information officer. As I watched the mile-and-a-half-long smoke column and flame billow over 30,000 feet into the brilliant sky, I realized not only were we experiencing an unprecedented disaster for the city, but as a community we would never be the same. Our sense of security had literally been blown away. How could something like this happen here?

Public safety and public works crews performed heroic acts rescuing people from harm's way, fighting the fires and keeping the city's damaged water system clean and intact. Other county public safety agencies raced to the scene to assist, along with state and federal agencies. An unprecedented (for us) unified incident command system was quickly formed, and this collaboration and shared expertise resulted in one of the smoothest unified command operations that the Environmental Protection Agency had been involved with at that time.

As public safety professionals and a city, we learned several key lessons that day and subsequent days about working together, providing citizens with fast and continuous information, and respecting and considering the potential danger of underground utilities.

Based on the lessons learned, the city now has a comprehensive emergency operations plan, and an Office of Emergency Management jointly staffed by fire and police officers. All city employees are trained in emergency incident management techniques. We have new communication tools and pathways to provide information in as many ways as possible to the media and the public.

In what we consider to be a "capstone" of our preparedness efforts, more than 70 agency representatives flew to Maryland to participate in a week-long disaster training event hosted and paid for by FEMA. We effectively managed a simulated large-scale earthquake event, created specifically for Bellingham and Whatcom County. This invaluable experience not only demonstrated that we have made much progress in improving our emergency management capabilities since June 10; it demonstrated our competency to effectively respond to the next catastrophic event. This is something the community should be proud of, and is one of the positive legacies of that day.

Written by Bill Boyd,
Bellingham fire chief


Whatcom Creek Commemorative Trail Guide
June 10th, 2009
Look for this symbol throughout the guide to learn more about each stop.
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Middle Falls
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Lower Falls
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Scudders Pond
Derby Pond
Control Dam
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Roosevelt Park
Sunnyland Park
Fout's Park
Battersby Field
Whatcom Middle School
Bellingham High School
St Clair Park
Stone Bridge
Meridian St
Cornwall Ave
James St
Woburn St
St Clair St
Alabama St
Iowa St
Iowa Dr
Electric Ave
Dupont St
Girard St
Ohio St
N State St
Meador Ave
Road Connection
Roeder Ave
Prospect St
Grand
Library
Sunshine Liquidators
BTC Fish Hatchery
Whatcom Creek Waterway
Commercial St
Railroad Ave
Holly St
Ellis St
Depot Market
Racine St
Valencia St
Fraser St
Lincoln Creek
Geri Fields
Sportsplex
Civic Field
Joe Martin Stadium
Aquatic Center
Carl Cozier Elementary School
Cemetery Creek
Lakeway Dr
Hannah Creek
Trans Mountain Pipeline
Olympic Pipeline
Park Creek
Fever Creek
Memorial Park
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Feet
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Map courtesy of the City of Bellingham
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Pipeline Safety TRUST

Ecological Restoration

Initial response actions focused on collecting field data on fish, wildlife and insect mortality. Crews determined no aquatic life survived the spill downstream from the rupture. Emergency restoration began soon after initial response.

When the gasoline exploded, all the water in Hannah Creek and most of the water in Whatcom Creek was vaporized. This resulted in gasoline constituents being "pounded" into the stream substrate and leacing into the stream whenever the substrate was disturbed. The solution was to shut off the flow from the lake into Whatcom Creek, place an excavator in the stream and turn over every square foot of the streambed the entire length of the burn zone.

As the streambed was restored, channel complexity and fish habitat features were built into the "new" channel. Several large wood structures used dead trees from the burn zone, some of which were felled to create safer working conditions for the restoration crews. These wood structures created complex channel, pond and floodplain habitat, and provided cover for juvenile salmon using the area.

Whatcom Creek is utilized by chinook, coho, pink and chum salmon as well as winter steelhead and coastal sea-run cutthroat trout. Resident rainbow and cutthroat trout also occur in the creek. Other fish species include sculpin, stickleback and lamprey.

Restoration project goals included creating new aquatic and terrestrial habitats and enhancing and restoring existing salmon habitat to a level greater than existed prior to the 1999 spill and fire on Whatcom Creek.

by Clare Fogelsong & Renee LaCroix

Cemetery Creek & Salmon Park The Cemetery Creek habitat restoration project is located where Cemetery Creek meets Whatcom Creek. The project includes approximately 75 meters along the south bank of Whatcom Creek and more than 400 meters along the east and west forks of Cemetery Creek. The design of this project replaced an existing segment of Cemetery Creek with a reconstructed channel and the creation of three cool water fish-rearing ponds, varying between 1 and 6 feet deep. Cemetery Creek has cold water running 2 to 5 degrees centigrade colder than Whatcom Creek, and thus provides cold water rearing habitat and refuge for young fish during warm summer stream temperatures.

The Salmon Park habitat restoration project is also located where Cemetery Creek meets Whatcom Creek. The Salmon Park project covers more than 100 meters of the north Whatcom Creek stream bank. The design reconnects a backwater channel within a historic meander of Whatcom Creek to improve winter high flow refuge habitat for juvenile salmon. These backwater areas had been cut off from Whatcom Creek by a human-made gravel berm placed along the stream bank. The removal of the berm allowed the creek into the area during high flow events, allowing juvenile salmon to escape flood flow forces in the main channel. These conditions benefit spawning and rearing habitat, and the free-draining nature of the channel prevents fish from being stranded as flows diminish.

Red Tail Reach The Red Tail Reach habitat restoration project is located in Whatcom Creek just upstream from I-5. The 5.7 acre project involved excavating over 30,000 cubic yards of fill to create much-needed fish and wildlife habitat features within Whatcom Creek. These features include oxbows, side channels, floodplain area, wetlands and uplands. This creates extensive off-channel rearing habitat, which is utilized primarily by juvenile coho salmon.

Red Tail Reach just after the fire on June 10, 1999 (left) and nearly 10 years later on May 18, 2009 (right).

Photos courtesy of Renee LaCroix.

End of Fire, Sewer Crossing Another barrier that limited the damage from the fire was the location of a sewer line that acts as a small dam as it crosses Whatcom Creek because it has its own fish ladder. The sewer line crosses Whatcom Creek a few hundred yards upstream from the point where the stream passes under Interstate 5. The sewer crossing marks the downstream extent of the burn zone. Had ignition been delayed much longer, the gasoline would have been under I-5 and into the downtown area.

Volunteer Restoration Downstream In summer of 1999, Nooksack Salmon Enhancement Association (NSEA) and the City of Bellingham Greenways program both received numerous requests from community members who wanted to do something to help. Just weeks after the explosion, Greenways and NSEA volunteer coordinators started working with dozens of volunteers to clear tons of garbage and invasive vegetation and to ready the stream bank along Whatcom Creek behind the DeWaard & Bode building (then referred to as the Bingo Hall) for planting.

On October 23, 1999, NSEA, Greenways, and more than 100 community volunteers gathered at the "Bingo Hall Site" to plant more than 500 native plants along the stream banks. City of Bellingham Conservation Corps Crews joined the workforce in 2000.

Volunteer energy also helped install a trail, salmon art sculptures and a gorgeous overlook at Wayside Park, which was dedicated in 2000.

The sense of community dedication to help bring back Whatcom Creek was very strong, and for several years after the explosion, groups of volunteers large and small turned out in all types of weather to help rebuild the creek that flows through the heart of Bellingham.

by Rachel Vasak

Groundwater Extraction & Treatment System Damage to the water treatment plant was limited to destruction of the main pump house. The city served its water customers for six months by connecting the plant to the main trunk line with an aboveground pipe powered by three generators flown in for the purpose.

The groundwater in the area where the pipeline failed was contaminated with various chemicals associated with gasoline. Groundwater in that area drains into Whatcom Creek from a series of seeps. To prevent ongoing pollution of the creek, and to remove the contaminants from the groundwater, an extraction and treatment system was installed near the city's water treatment plant.

This system is made up of a suction pump in the small building just north of the water treatment plant, which sucks up and treats the contaminated groundwater to keep it from getting into the creek. This pump-and-treat system is complimented by the injection of chemicals (aqueous sulfate) into the area to help with the biological breakdown of the remaining hydrocarbons. Air is also injected in this area to speed up this process. Monitoring wells have been installed around the area of contamination, and regular monitoring checks for "free product" (gasoline), benzene, and other chemicals associated with gasoline. No free product has been found since December of 1999, and in general all chemicals checked for have been declining.

Since this system was installed after the pipeline failure, more than 10.7 million gallons of groundwater have gone through it, and as of September 2008, 326 gallons of gasoline have been removed.

by Carl Weimer and Clare Fogelsong

Woburn Street Confines Damage When the fumes that had built up along Whatcom and Hannah Creeks ignited and turned the streams into corridors of fire, the wind was from the north. Damage to the riparian areas was therefore generally more prevalent on the south and southwest banks of the streams.

While not as evident in the gorge area of the burn zone, it was a saving grace once the fire roared out of the confinement of the gorge near Woburn Street. Had the wind not pushed the fire to the south in the area downstream of the gorge, several businesses, including many car dealerships, may have experienced catastrophic consequences.

by Clare Fogelsong

Emergency Remediation The pipe ruptured just to the west of the water treatment plant, between a pump station and Hannah Creek. The volume of gasoline was so great that Hannah Creek became a stream of gasoline.

The gasoline also flowed north through the soil and fractured bedrock and then into the groundwater table. The gasoline entered Whatcom Creek via several seeps, areas of the stream bank that would normally provide the stream with groundwater. Some seeps were several hundred feet from the rupture.

Emergency remediation had three main challenges: Clean up Hannah and Whatcom Creeks, remove contaminat ed soil, and eliminate the seeps into Whatcom Creek.

So much gasoline had soaked into the streambed of Hannah Creek that in order to clean it up, the stream was dammed and directed into a pipe placed high on the stream bank to make room for crews to dig up and replace the contaminated stream bed. For at least half of the distance, the work was accomplished with shovels and wheel barrows because it was inaccessible to tracked machines. Hannah Creek exited the pipe at Whatcom Creek.

Contaminated soil near the rupture site and down to Hannah Creek was removed first. Crews then discovered additional areas of contaminated soil across Hannah Creek where gasoline had followed a water pipeline west toward the storage tanks. Soon excavation was moving north towards Whatcom Creek, again following pipelines. In both directions the work was slow and complicated due to numerous water and utility pipelines and wires. Ultimately, the excavation extended north to within 50 feet of the bank of Whatcom Creek and was dug to a depth of 25 feet in some areas.

Initially the seeps into Whatcom Creek were controlled by booms and skimmers that sucked and pumped the gasoline off of the surface of the water contained behind the booms. This was aided by adjusting the stream flow from Lake Whatcom. Within two months, a groundwater extraction system was employed.

by Clare Fogelsong

Memorial Pole The Memorial Pole and its surrounding two carved cedar benches are sculptures that were installed at Salmon Park on Earth Day in 2007. Carved by Coast Salish carvers, the cedar pole and two benches were dedicated to the memory of the three boys who died in the pipeline disaster, for the loss of life of Whatcom Creek, and for all those families who have lost children.

Written by Wendy Scherrer

Eagle Totem Pole & Wayside Park In 2000, retired dentist Dr. Mike McRory was given a piece of an old red cedar tree that had burned in the Whatcom Creek pipeline explosion. The Eagle Totem was carved from the burned cedar log, and it reminds us of the old growth forest that grew right to the edge of Whatcom Creek until the 1850s. The giant cedars once stood as sentinels along Whatcom Creek, shading the water, providing a home for birds, insects and other animals, holding the streambanks, and protecting the salmon. High in the branches of these giant trees, eagles could look over the stream.

The Eagle Totem honors the life of Liam Wood, who was flyfishing when he died in Whatcom Creek on June 10, 1999. Mike created a design that brought in many ideas about Liam's life, Whatcom Creek, the tragedy of the fire, salmon, fishing, and the love of a mother.

The eagle on the top represents Liam, who was also a fisher. Like these majestic birds, Liam had a keen awareness of nature and

could read the river. He knew what water might hold a fish.

The frog on the breast of the eagle represents Whatcom Creek. The local native people referred to Whatcom as Wha-klum, meaning noisy waters, or the place of noisy frogs.

The burned area on the side of the totem represents the tragedy of the pipeline explosion. This fine-grained old growth cedar was not completely burned by the fire, nor was Whatcom Creek. The creek can be restored just as we have repaired the one block section that the pole sits in. Because the forest community is extremely complex, we must try to use nature as our model and do our best to put all the pieces of the stream ecosystem back together.

Photo courtesy of Whatcom Museum

Eagle Totem at Wayside Park, carved by Mike McRory.

The salmon the eagle grasps in its claws represents the richness of the natural environment Liam discovered through his love of fly-fishing. The Eagle depended on salmon for its survival. Liam used to release the live fish that he caught, back to the stream.

The butterfly wings carved on the back of the totem represent a mother's love for her child. Liam's mother gave Liam gentle guidance and direction, which steadied his brief flight into the world.

The Eagle Totem was put above the north bank of Whatcom Creek in Wayside Park, which was built by hundreds of volunteers along the block between Dupont and Grand Avenue. Fish biologist Steve Seymour created metal fish sculptures that were installed along the curving path in the park, which has the feeling of a streambed. Liam's mother, Marlene, worked every week on the restoration of the stream bank along Whatcom Creek at Wayside Park for more than a year after Liam died.

The Eagle Totem and Wayside Park were dedicated on July 8, 2000.

By Wendy Scherrer & Mike McRory

11 Maritime Heritage Park & the Whatcom Creek Hatchery

Maritime Heritage Park, from Holly Street to Dupont, was severely impacted by the petroleum that flowed in Whatcom Creek throughout the park and out into Bellingham Bay on June 10, 1999.

The creek corridor in Maritime Heritage Park has a rich cultural and environmental history. It is the place where Coast Salish people gathered and collected fish and shellfish for thousands of years. It is where Lummi people met Euro-American pioneers in the 1850s to start the town of Whatcom, which became the city of Bellingham. For more than 100 years, the surrounding forests were logged, the waterfalls were used to power sawmills to produce lumber, and the estuary was filled. Whatcom Creek was channeled and used for sewage, and the site became a garbage dump. A sewage treatment plant was eventually built and industry grew around the creek.

Since the 1960s, lower Whatcom Creek between Holly Street and Grand Avenue has been viewed with new vision. The 4.2-acre park was developed through the Whatcom Creek Re-Development Project led by City of Bellingham Planning Director Eunice Wolf. The sewage treatment plant was transformed into a fish hatchery in 1978, with the first salmon released in 1979 through the Bellingham Technical College (BTC) Fisheries Technology program. Enhancement of salmon populations in Whatcom Creek continues to provide the largest freshwater chum sports fishery in Washington State. The hatchery provides supplementation of other species of wild salmon and trout stock, in coordination with the Washington Department of Fish and Wildlife. Volunteers from Nooksack Salmon Enhancement Association have worked for the past 20 years on the restoration of the stream corridor in Maritime Heritage Park by planting native plants and removing invasive species.

On June 10, 1999, the gasoline flowed down Whatcom Creek, killing all aquatic life in the stream and estuary in Maritime Heritage Park. The gasoline and water from the creek came to the BTC hatchery through an intake pipe and entered the pond holding 18,000 rainbow trout, killing them all. Two weeks earlier, more than 1.2 million fall Chinook salmon fry had been released from the hatchery, luckily escaping the June 10 disaster.

by Wendy Scherrer

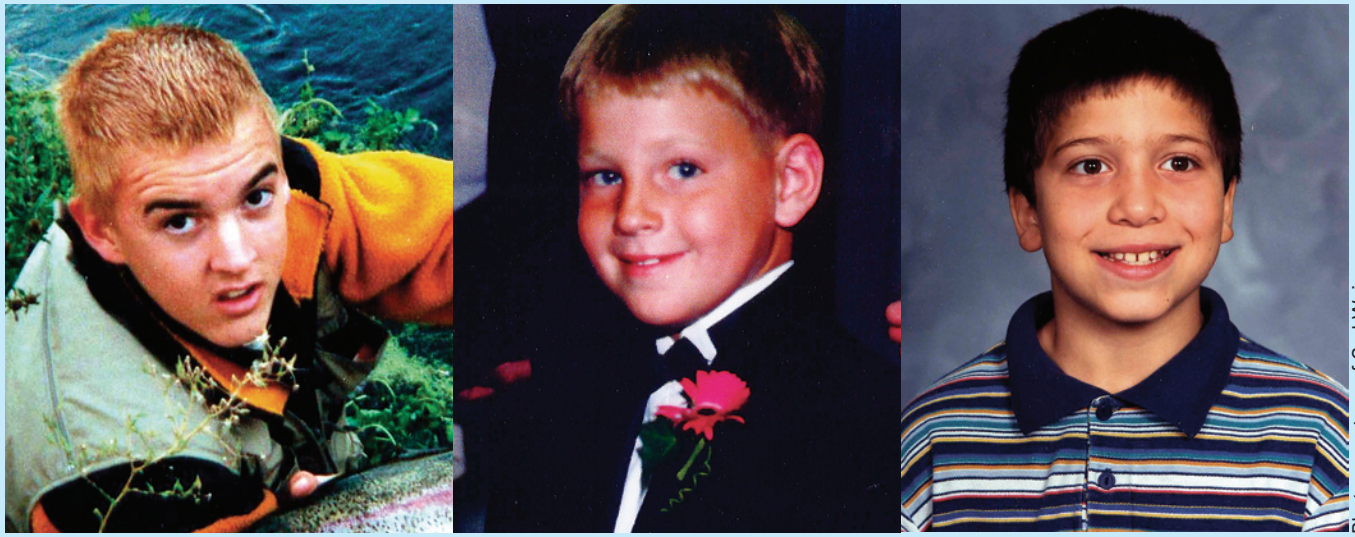
Whatcom Creek Restoration Prayer Wheel

The gasoline spill and fire caused by rupture of the Olympic Pipeline on June 10, 1999 was a destructive and traumatic event for the entire Bellingham community. That it took place in one of our city's most treasured parks and took the lives of three children made the event more painful still. Yet, those three elements of youth, nature and gasoline juxtaposed in fire offer a stark opportunity for all of us to reflect on how we have collectively constructed a society where such tragedy can occur. We are called upon to imagine and work toward a way of living that does not pit our need for energy against our love for nature celebrated in parks and threaten our faith in the future embodied in our children. Imagining is a vital step to bringing forth new ways of being. Through such efforts founded in memory and understanding of the past we can move forward with wisdom and intention.

In the spirit of fostering awareness of the pipeline disaster and the vast work of restoring the creek, Bellingham clay sculptor Chris Moench created the "Whatcom Creek Restoration Prayer Wheel." The sculpture is on display in the lobby of City Hall during the anniversary events. Everyone is invited to put in the prayer wheel their written reflections on the pipeline disaster, its impact on their lives and their vision for the future. A bronze version of the vessel will be cast and installed at a site near Whatcom Creek. The writings will be sealed inside to remind each of us of the impacts of the disaster and the intentions for change that arose from its flames.

by Chris Moench

Liam, Wade and Stephen



Photos courtesy of Carl Weimer.

From left to right: Liam Wood, Wade King and Stephen Tsiorvas.

4 Liam's Story

Liam Wood had graduated from high school just five days before the pipeline failed in Whatcom Falls Park. On June 10, 1999, he went to work in the early afternoon as he was scheduled to do, but when he arrived he was told that things were slow so he could have the afternoon off. Being a beautiful spring day, Liam decided to do what he loved to do most – go fishing. He ran home, got his fly-fishing gear, and headed to one of his favorite local fishing holes not two miles from his house.

Liam often fished in the canyon of Whatcom Creek in the lower reaches of Whatcom Falls Park. Because of the steepness of the canyon walls, access was difficult, which made the place a private retreat where very few other people ventured. Huge conifers lined the canyon, and ferns seemed to drip from the canyon walls. The water moving around boulders, over small falls, and through pools created a perfect sense of peace and tranquility in the middle of this city of nearly 70,000 people. Earlier in the spring, Liam had seen an adult river otter in this same place.

Unfortunately on June 10, 1999 Liam's peace and tranquility was broken when the creek around him turned milky white as thousands of gallons of gasoline were dumped into the creek when the pipeline burst upstream. As the gasoline flowed downstream on the surface of the creek, the canyon filled with a toxic vapor cloud. The steepness of the canyon that in the past had provided Liam with peace and quiet now gave him no place to retreat to. He was overcome by the vapors and fell into the creek he loved and drowned.

Liam would be 28 years old today if he hadn't gone fishing.

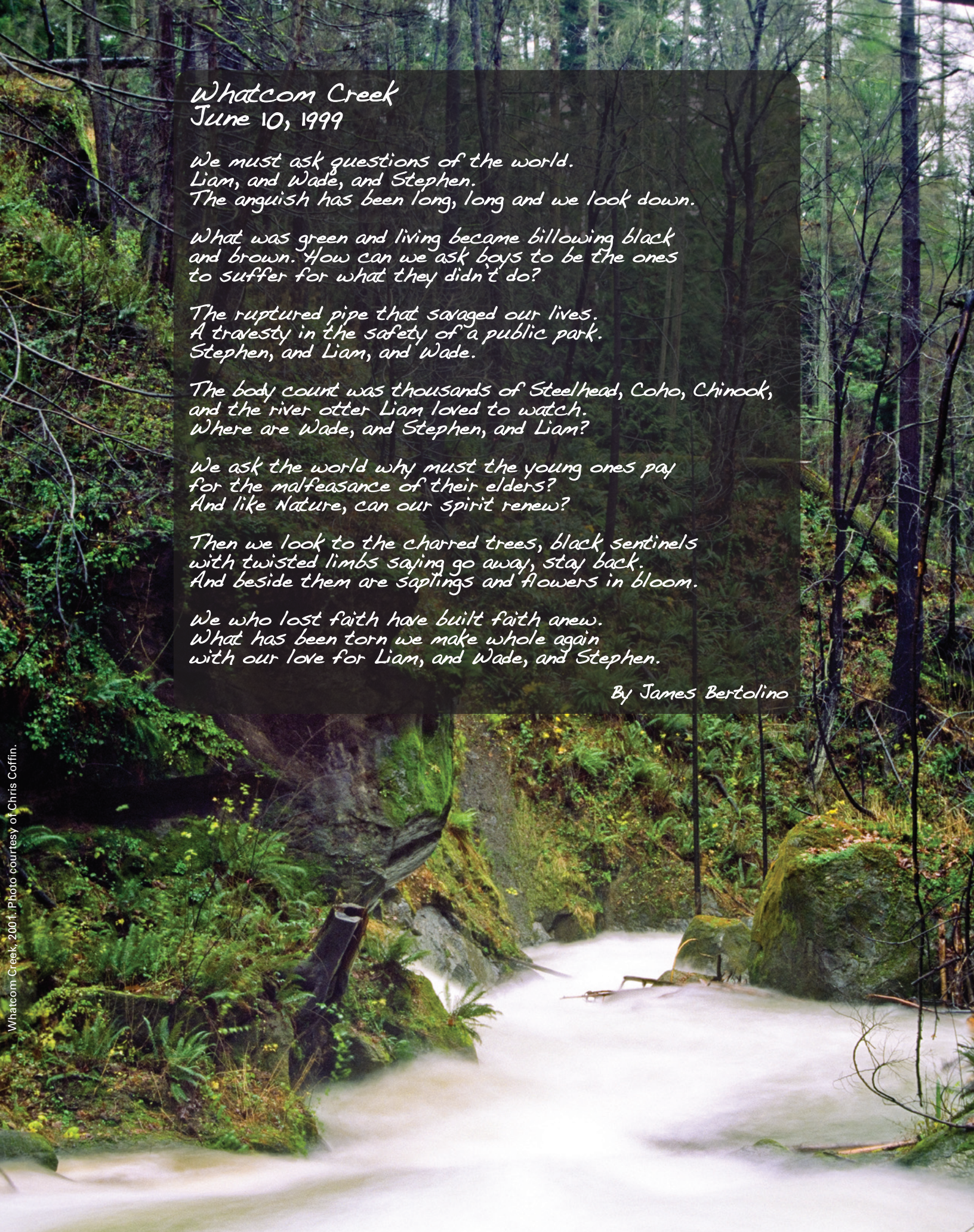
3 Wade and Stephen

On June 10, 1999, Stephen Tsiorvas and Wade King were doing what just about any 10-year-old boys living with a beautiful park in their backyards would do – they were messing around in the woods. Unfortunately what they found that day in their park were thousands of gallons of gasoline flowing down the creek. When the gasoline ignited, they were caught in the inferno.

Shortly after the ignition, Wade and Stephen were helped from the park by relatives and neighbors where they waited near their homes while ambulances tried to get to the area through the heavy traffic caused by the fire. The boys had survived the blast, but had second- and third-degree burns over 90 percent of their bodies. They managed to talk with people for a while, with Wade even asking that his mother not look at him because he didn't want her to be upset.

Later Wade's father would say to Congress, "How do I erase the image of two children standing in Steven Tsiorvas' yard, trying to console them with the skin burned off above their ankles, all within 150 yards of our own safe home?"

The boys were rushed to St. Joseph Hospital, and then airlifted to Harborview Medical Center in Seattle. Their families followed them to the hospital in Seattle where they received the sad news that no amount of expert medical care could save their children. Both Stephen and Wade died early the following day.



Whatcom Creek
June 10, 1999

We must ask questions of the world.
Liam, and Wade, and Stephen.
The anguish has been long, long and we look down.

What was green and living became billowing black
and brown. How can we ask boys to be the ones
to suffer for what they didn't do?

The ruptured pipe that savaged our lives.
A travesty in the safety of a public park.
Stephen, and Liam, and Wade.

The body count was thousands of Steelhead, Coho, Chinook,
and the river otter Liam loved to watch.
Where are Wade, and Stephen, and Liam?

We ask the world why must the young ones pay
for the malfeasance of their elders?
And like Nature, can our spirit renew?

Then we look to the charred trees, black sentinels
with twisted limbs saying go away, stay back.
And beside them are saplings and flowers in bloom.

We who lost faith have built faith anew.
What has been torn we make whole again
with our love for Liam, and Wade, and Stephen.

By James Bertolino

Whatcom Creek, 2001. Photo courtesy of Chris Coffin.