



HIDDEN CREEKS

High
School
9-12

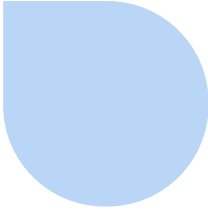


INTRODUCTION

The Hidden Creeks Project explores the history and conservation of Mill Creek in Erie, PA. In the following slides, explore various historical floods and their causes. Look into how the residents and elected officials responded, both in the moment and in the following months. Consider topography, climate, policy, preparedness, and budget; all elements that tie each story together.



Click on the underlined text for links to more resources



OBJECTIVES



MILL CREEK FLOOD OF 1915

DISCOVER THE DETAILS OF THE MILL CREEK FLOOD OF 1915, THE AFTERMATH, AND THE UNINTENDED CONSEQUENCES OF BURYING A NATURAL WATERWAY BENEATH INFRASTRUCTURE.

WATER SYSTEM POLICIES

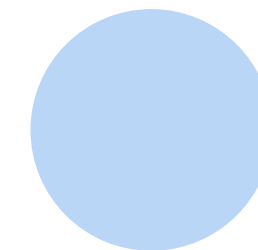
COMPARE HOW THE CITY WAS STRUCTURED AROUND NATURAL WATERWAYS 100 YEARS AGO TO CURRENT DAY POLICIES. WHAT IS WORKING, WHAT NEEDS TO BE ADDRESSED?

LOOKING FORWARD

EXPLORE HOW THE CITY MOVED FORWARD WITH THE CONSTRUCTION OF THE TUBE AND THE SUBSEQUENT GROWTH OF THE CITY OVER TIME. HOW HAVE OTHER POPULATIONS DEALT WITH FLOOD RECOVERY?

NATURAL DISASTER PREPARATION AND WARNING

ONE HUNDRED YEARS AGO, WARNING SYSTEMS WERE NON-EXISTENT OR LIMITED. HOW HAS COMMUNICATION CHANGED, AND HOW EFFECTIVE IS IT NOW? BRAINSTORM WHAT COULD BE IMPROVED, AND HOW.



MILL CREEK FLOOD OF 1915

- HOW WERE ERIE AND MILL CREEK (THE CREEK) INTERTWINED PRIOR TO THE FLOOD?
- HOW DID CITY OFFICIALS RESPOND FOLLOWING THE FLOOD?
- HOW HAS THE CITY INTERACTED WITH MILL CREEK IN THE DECADES AFTER THE FLOOD?
- WHAT IS OUR CURRENT INTERACTION WITH MILL CREEK?
- WHAT COULD IMPROVE OUR INTERRELATIONSHIP WITH MILL CREEK?





RECENT FLOODS IN A WORLDWIDE PERSPECTIVE

THERE HAVE BEEN A NUMBER OF RECENT FLOODS WITHIN THE PAST FEW YEARS AROUND THE WORLD. COMPARE COMMUNITY RELATIONSHIPS WITH THEIR WATERWAYS, USES OF WATER, PREPARATION FOR DISASTERS, AND FUTURE PLANS.



GUADALUPE RIVER, TX - 2025

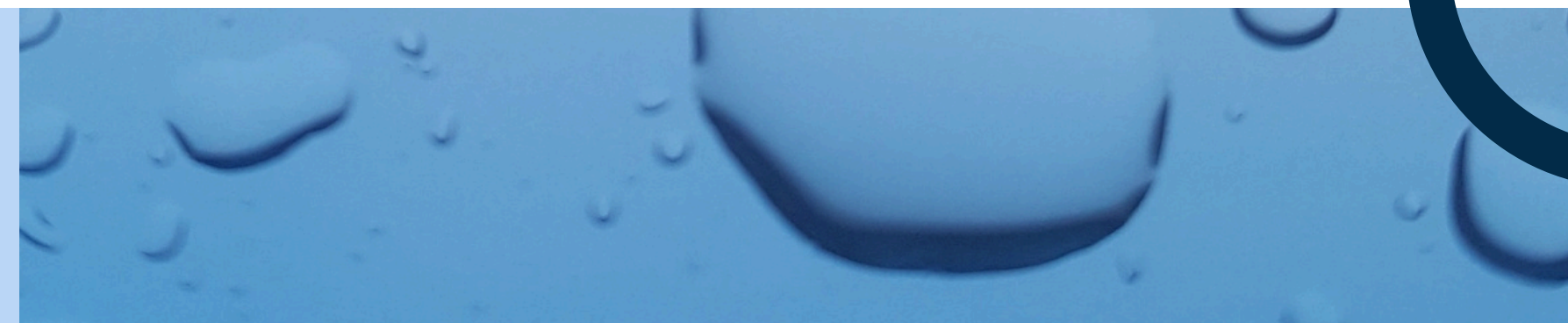
EXPLORE THE GUADALUPE RIVER FLOOD EVENT OF 2025. HOW WAS THAT REGION PREPARED? HOW DID THEY REACT? HAVE PLANS CHANGED NOW FOR FUTURE CARE AND EVENTS?

NEPAL FLOOD - 2026

LOOK DEEPER INTO THE NEPAL FLOOD OF AUGUST 2026. WHAT WAS THE CAUSE OF THE FLOOD? HOW DID THE POPULATION AND OFFICIALS REACT? WHAT COULD HAVE BEEN DONE DIFFERENTLY?

GRAND CANYON FLOOD - 2026

DISCOVER THE DETAILS OF THE GRAND CANYON FLOOD OF 2026. WHAT VARIABLES LED TO THE DISASTER? HOW DID THE PARK AND CONSERVANCY RESPOND?





ECO-CHOICES

STUDENTS WORK IN GROUPS TO MAKE ENVIRONMENTAL, POLITICAL, AND ECONOMIC CHOICES AND OBSERVE THE RESULTS.

COMMUNITY FLOOD RESPONSE

THE CLASS WILL ENGAGE IN A GROUP ACTIVITY SIMULATING A COMMUNITY FLOOD, MAKING SWIFT CHOICES IN RESPONSE TO THE SITUATION.

ACTIVITIES

PROTECT YOUR WATER

STUDENTS WILL USE DATA TO LEARN TO ANALYZE HOW VULNERABLE SOIL CAN BE TO ABSORBING CONTAMINANTS THROUGH STORMWATER.

WHAT'S IN THE WATER?

COHESIVE UNIT FOCUSING ON WATER CONTAMINANTS, HOW THEY CYCLE IN URBAN AREAS, HOW THEY AFFECT RESIDENTS, AND COMMUNITY OPTIONS



ADDITIONAL RESOURCES - VIDEOS AND BOOKS



THE FLOOD HUB

UNITED KINGDOM WEBSITE EXPLORING THE EFFECTS OF TRAUMATIC FLOODING ON YOUTH POPULATIONS. OFFERS FIRST HAND STORIES AND EFFORTS BY YOUTH TO PLAY A PART IN COMMUNITY RECOVERY AND POLICY-MAKING.

HOPE FOR THE GUADALUPE - 26:14

VIDEO DESCRIBING THE REGION PRIOR TO THE FLOOD, THE FLOOD EVENT, AND EFFORTS TO RESTORE AND CONSERVE THE AREA.

THE TERRIBLE WAVE - MARDEN DAHLSTEDT

HISTORICAL FICTION ABOUT A YOUNG GIRL SURVIVING THE AFTERMATH OF THE JOHNSTOWN FLOOD.



DISASTER ROLES OF LOCAL OFFICIALS - 14:55

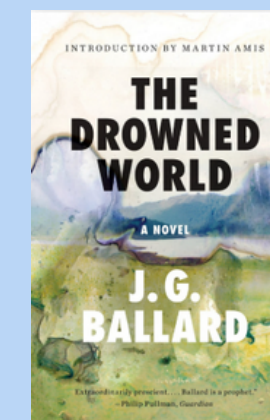
VIDEO EXPLAINING DIFFERENT ROLES AND POLICIES OF OFFICIALS IN CHARGE OF THE AFTERMATH OF FLOODING.

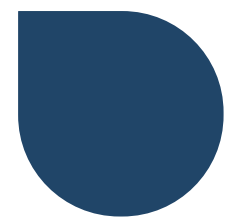
WATERSHED - 21:49

LOCAL DOCUMENTARY DESCRIBING THE MILL CREEK FLOOD OF 1915, THE ENGINEERING AND CONSTRUCTION OF THE TUBE, AND CONSERVATION EFFORTS IN THE FOLLOWING DECADES.

THE DROWNED WORLD - J.G. BALLARD

FUTURISTIC NOVEL WHERE THE EARTH'S ENVIRONMENT HAS CHANGED, AND HOW SOCIETY CHANGED WITH IT





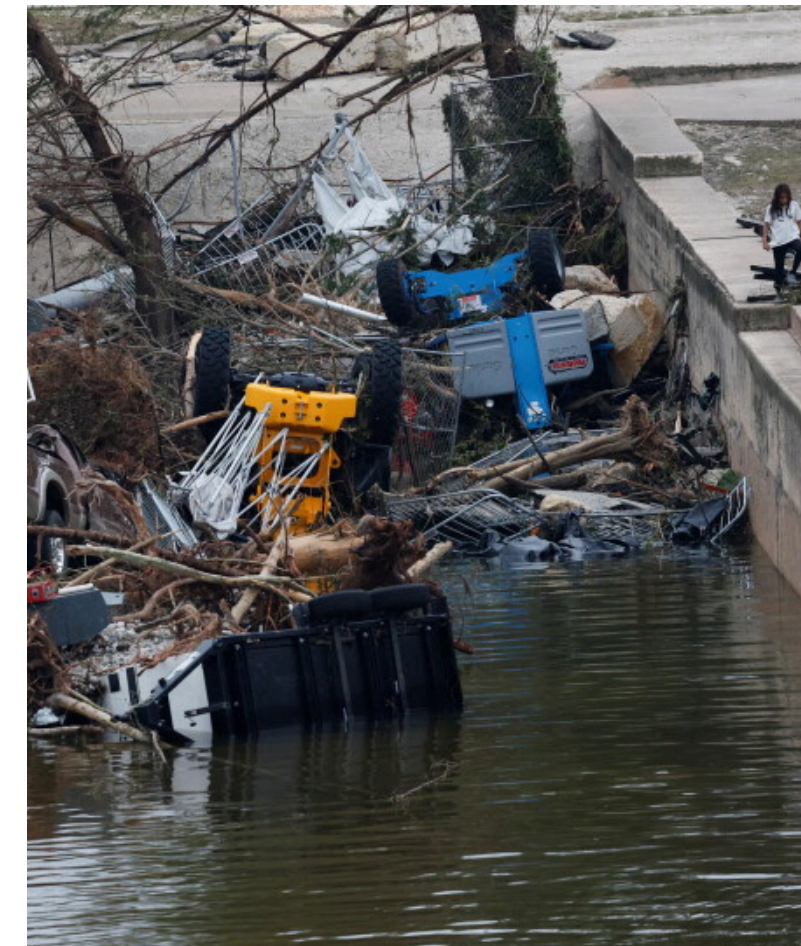
DEEPER THINKING



- HOW WAS ERIE PREPARED FOR A FLOOD?
- WHAT SOLUTION DID THEY CHOOSE? HOW EFFECTIVE HAS IT BEEN? WHAT, IF ANY, ARE THE ADDITIONAL CONSEQUENCES OF THE SOLUTION?



- WHAT VARIABLES CAN CONTRIBUTE TO A FLOOD?
- HOW CAN COMMUNITIES TAKE MEASURES TO AVOID A FLOOD?



- HOW HAVE COMMUNITIES DEVELOPED THEIR EMERGENCY COMMUNICATION SYSTEMS OVER TIME? HOW EFFECTIVE ARE THEY? WHAT CAN BE IMPROVED?



- IN WHAT WAYS CAN COMMUNITIES PREVENT POLLUTANTS FROM ENTERING THEIR NATURAL WATER SYSTEMS? WHY IS THIS ACTION IMPORTANT?

QUESTIONS AND ADDITIONAL RESOURCES

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