**project intro**

As urban development continues to infringe on the ecosystem services, sensitive and appropriate measures must be considered for maintaining the performance and resiliency of our living and built environments. The ecosystem services from healthy natural hydrology systems provide a rich riparian experience in the Mojave Desert. The Las Vegas water network of washes serve as a foundation point to explore best practices of performative landscapes in the arid regions of the United States.

Through the investigation of healthy environmental systems for productive ecological services, the studio aims to blend the environmental infrastructure with the urban fabric to serve as a performative landscape and a socially equitable experience along the existing Las Vegas water network. The environmental scenarios discovered through the previous exercise will serve as a framework for design proposals that include accessible and educational opportunities to the immediate and surroundings communities within designated sub-watersheds.

**approach**

You will work individually by choosing a designated sub-watershed along the Flamingo Wash network to develop a detailed proposal for landscape performance implementation that includes site analysis, programming, conceptualization, and design strategies.

While maintaining your parametric model of environmental performance, you will be able to design responsive strategies and solutions based off modeling outputs of data. This closed loop system of analytical output and responsive prototyping will generate different outcomes of performance benefits dependent on their strategy for addressing water resources. In order to evaluate the effectiveness of their design proposal, performance metrics will be applied to generate environmental, social, and economic benefits.

**objectives**

- apply the outcomes from your analytical model to generate responsive design potential as evidence-based design
- measure the performative benefits derived from your design proposal that revolve around environmental, social, and/or economic opportunities
- communicate and represent comprehensive evidence-based design through the use of dynamic visualization, fabrication, and parametric modeling methods
narrative deliverables

_master plan and typology analysis_
WASH__profile condition, material, and characteristics
ENV__runoff volume from 0.25, 0.50, 1.00 inch rain events
SOC__landuse types and classification
SOC__pedestrian accessibility within 1/4 mile of wash
ENV (optional)__tree inventory of canopy health and size
ENV (optional)__outdoor air temperature in summer and winter
ENV (optional)__erodibility and deposition

_responsive green infrastructure (g.i.) strategies & benefits_
ENV__runoff volume reduction from green infrastructure
ECO__g.i. construction, maintenance, and life cycle cost comparison
ECO__g.i. and tree cost savings
ENV/SOC (optional)__tree benefits for air quality
ENV/SOC (optional)__outdoor comfort
ENV (optional)__soil stabilization

_design foci_
SITE SCALE__wash and adjacent access conditions
WASH SCALE__overview of wash design detail
WASH SCALE__profile(s) demonstrating performative benefits
WASH SCALE__demonstrate the reduction, infiltration, conveyance, and filtration cycle
WASH SCALE__immersive wash experiences

_sectional detail model (visualization and fabrication)_
WASH FOCUS__designated plaster section model of developed performance concept
WASH FOCUS__section drawing image transfer

_all of these narrative deliverables must be composed into a professional storyboard communicating your intended purpose through the conception and development of performative design. This storyboard must fit onto a presentation board with a minimum width of 36” and height of 60”
MODULE 3 \ Exercise 4.1
With the start of exercise 4.0 (Master Plan Analysis, Responsive Strategies, & Design Foci) the conceptualization and revision methodology should be primarily driven through the iterative process of sketching and precedent study. This will allow for rapid development of ideas and critique behind the cyclical feedback loop of responsive and performative design. It will be expected to have at the start of each class period the required materials (trace paper, pen, study models, print samples) in order to fulfill the final assignment of the studio course.

Through this rigor, you will then translate your final revisions into a professional and comprehensive digital and printed storyboard. This may include digital models, conventional drawings, videos, and fabricated models.

REQUIRED deliverables for 11.01

_your wash profile drawing (large sketches on trace)
  _context and content from provided rhino file
  _runoff volume from 0.25, 0.50, 1.00 inch rain events based off of
    GreenValues National Stormwater Runoff Calculator
    http://greenvalues.cnt.org/national/calculator.php
  (optional)_responsive green infrastructure concepts based off of
    GreenValues National Stormwater Runoff Calculator

_chipboard or cardboard study model (wash segment)
  _accurate representation of wash profile (angle, depth, edge)
  _profile and edge manipulation (kinetic sand)

_graphic style precedents & examples
  _master plan analysis
  _master plan design concept
  _perspective renderings
  _diagrams
  _site plan
  _infographics

_design objective & action plan*
  _mission statement
  _site photographs
  _noted observations
  _proposals & proof of concept

*This work will be continuously developed throughout the duration of the assignment thus will be continuously in flux and therefore answered accordingly.