



Cochise County
Community Development
Highway and Floodplain Division

Public Programs...Personal Service
 www.cochise.az.gov

DRAINAGE ANALYSIS ATTACHMENT

This information will help determine what type of drainage analysis or other agency review requirements or reporting you may need for your proposed project based on your site conditions. These requirements are under the regulatory control of the Cochise County Flood Control District, as defined in the Cochise County Floodplain Regulations.

It is strongly recommended that you complete and submit your drainage analysis in advance of finalizing your design plans. These studies will inform you about needed improvements, finished-floor elevations and other surface drainage improvements that will need to be included in your final site and building plans and your permit application. Additional fees for drainage analysis review may also be required.

APPLICANT NAME _____

TAX PARCEL NUMBER _____

1. Will your project disturb one (1) acre or more?

NO _____ YES _____ If YES, you will need to provide:

- a) A Stormwater Pollution Prevention Plan (SWPPP) will need to be submitted for review and approval by Cochise County. It must include an approved **Notice of Intent (NOI)**, which is obtained from the Arizona Department of Environmental Quality (AZDEQ) to be covered under the Arizona Pollution Discharge Elimination System (AZPDES) Construction General Permit (CGP). In accordance with Arizona’s Stormwater Construction General Permit (CGP-2013), Part 6.1, an operator is to develop a Stormwater Pollution Prevention Plan (SWPPP), before submitting the Notice of Intent (NOI), for permit coverage and prior to conducting any construction activity. Smart NOI’s submitted to AZDEQ can be submitted online. Contact AZDEQ for more information: <https://www.azdeq.gov/environ/water/permits/cgp.html>
- b) Provide a **Drainage Analysis** prepared by a Registered Professional Civil Engineer [P.E. (Civil)] and submit to Cochise County. Include an approved NOI (signed NOI) within the drainage analysis. Requirements for drainage analysis reports are shown in Appendix A of the *Cochise County Floodplain Regulations, 2015*. Also see required information noted on Page 3 of this attachment.
- c) Provide a **Dust Control Plan** (included within the drainage analysis) to Cochise County demonstrating how dust will be mitigated during the construction process.

NOTE: If your project does not initially disturb more than an acre, but your future plans are to continue to improve your site (cumulative disturbance), you will need to provide the above information once you meet the one (1) acre threshold.

Highway and Floodplain
 1415 Melody Lane, Building F
 Bisbee, Arizona 85603
 520-432-9300
 520-432-9337 fax
 1-800-752-3745
 highway@cochise.az.gov
 floodplain@cochise.az.gov

Planning, Zoning and Building Safety
 1415 Melody Lane, Building E
 Bisbee, Arizona 85603
 520-432-9300
 520-432-9278 fax
 1-877-777-7958
 planningandzoning@cochise.az.gov

- d) If proposed work in a wash is within a quarter of a mile of designated impaired water, you must contact AZDEQ to determine if 401-permit is required for your project.
- e) If proposed work in a wash disturbs more than twenty-five (25) cubic yards of material or an area greater than one tenth of an acre (0.1 acre), you must contact the U.S. Army Corps of Engineers (USACOE) to determine if a 404 permit is required for your project.

2. If your project will not disturb more than an acre, will your project disturb half of the property area (50%) of your parcel or more?

NO _____ YES _____ If YES, you will need to:

- a) Submit a copy of the **Notice of Intent (NOI)** received from AZDEQ (Website: <https://www.azdeq.gov/envIRON/water/permits/cgp.html>).
- b) Provide a **Drainage Analysis** prepared by a P.E. (Civil). See required information noted on Page 3 of this attachment.
- c) Provide a **Dust Control Plan** (included within the drainage analysis) to Cochise County demonstrating how dust will be mitigated during the construction process.
- d) If proposed work in a wash is within a quarter of a mile of designated impaired water, you will need to contact AZDEQ to determine if a 401 permit is required for your project.
- e) If proposed work in a wash disturbs more than twenty-five (25) cubic yards of material or areas greater than one tenth of an acre (0.1 acre), you need to contact the U.S. Army Corps of Engineers (USACOE) to determine if you will need a 404 permit for your project.

NOTE: Construction projects that disturb less than one acre, or meet other potential exemptions may still be required to obtain a AZDEQ Construction General Permit coverage based on the potential for contribution to, or a violation of, a water quality standard or for significant contribution of pollutants to Waters of the U.S.

3. Are you proposing to build within a Federal Emergency Management Agency Special Flood Hazard Area (FEMA SFHA): Zone A, AE, AH, or AO?

NO _____ YES _____ If YES, you will need to:

- a) Provide a **Drainage Analysis** prepared by a P.E. (Civil). See required information noted on Page 3 of this attachment.
- b) Apply for **Floodplain Use Permit**.
- c) An **Elevation Certificate** is required and must be completed by a Registered Land Surveyor (RLS) or a P.E. (Civil) to verify finished floor is elevated a minimum of one (1) foot above the water surface elevation determined by the Drainage Analysis or FIRM panel. **This elevation must be verified by an RLS or P.E. (Civil) before placing the finished floor (if concrete) or setting the lowest structural member (if a manufactured home is being used as the proposed Commercial/Industrial improvement).**
- d) If proposed work in a wash is within a quarter of a mile of designated impaired water, you will need to contact AZDEQ to determine if a 401 permit is required for your project.
- e) If proposed work in a wash disturbs more than twenty-five (25) cubic yards of material or areas greater than one tenth of an acre (0.1 acre), you will need to contact the U.S. Army Corps of Engineers (USACOE) to determine if you will need a 404 permit for your project.

By my signature below, I hereby certify that all the information presented in this form is accurate to the best of my knowledge. I understand that I may be contacted to provide additional information or may need to obtain other federal, state or local permits in order to do my project at my site location.

Signature _____

Date _____

Print Name/Company _____

Owner Agent

Information needed in your Drainage Analysis, depending on the extent of the analysis:

Provide a **Drainage Report** for areas of disturbance equal to or greater than one (1) acre in size or for any site subject to adverse impacts (creating increased water surface elevations or velocities due to the development) on adjacent parcels. It must be demonstrated in your drainage analysis that structures will be constructed:

- At least a foot above determined water surface elevations created on your site (on-site flows) or at least a foot above determined water surface elevations created from flows passing through or near your site (off-site flows), whichever is greater.
- A safe distance away from washes on or near your site (erosion hazard setback distances) that a structure can be placed.
- In such a manner that your development does not have an adverse impact on adjacent parcels. The use of detention (slow the flow down) or retention (keep the flow on-site) basins may be needed to adequately demonstrate that an adverse impact would not be likely to occur.

Provide a **Hydrology Report** when improvements do not cause adverse impacts nor will they require extensive structural improvements for handling drainage but your site is impacted by flows from significant watercourses (on-site or off-site flows). This report should include:

- A grading plan that demonstrates adequate site drainage.
- Establish finished floor elevations that are free from flooding.
- A determination of adequate wall opening sizes to make sure walls/fences do not divert offsite flow in another direction.

Provide a **Drainage Statement** when drainage conditions are not affected by 100-yr flows of 500 cfs or more and is neither subject to detention requirements nor impacted by flows from a significant watercourse. This Statement should include:

- Adequate demonstration that adequate site drainage is provided.
- Establish finished-floor elevations which assure that all structures are free from flooding during a 100-year flood.

Questions? Contact the Floodplain Administrator at (520) 432-9300 for clarifications of these requirements. The Cochise County Floodplain Regulations are available on-line at:
www.cochise.az.gov/highway-and-floodplain/floodplain-division