

**ARIZONA
DEPARTMENT OF
TRANSPORTATION**

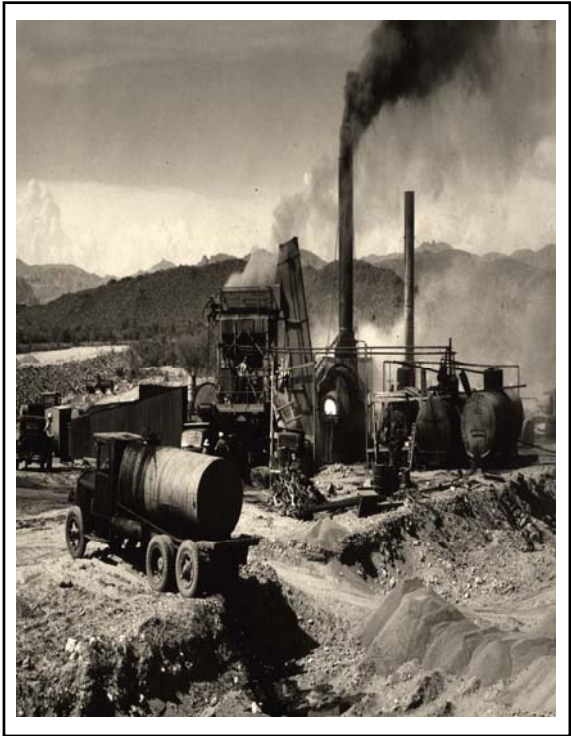
**ENVIRONMENTAL PLANNING
GROUP**

and

**MATERIALS GROUP
GEOTECHNICAL DESIGN SECTION**

**Hopi Partnership Steering Committee
Meeting in Flagstaff - August 27th, 2014**







*Why should ADOT be
concerned about the
environmental issues of
Material Sources?*



Harm to ADOT relationships with land-managing agencies, tribes, or other parties.

- **Interruptions in service from a material source could delay construction progress.**

- **Adverse publicity.**

- **Regulatory enforcement issues.**



Key Regulations that Apply to Material Sources:

The Endangered Species Act, (U.S.C.)

Arizona Native Plant Law (A.R.S.)

The Clean Water Act (U.S.C. and A.R.S.)

National Historic Preservation Act (U.S.C.)

State Historic Preservation Act (A.R.S.)

Federal and State Burial Laws (U.S.C. and A.R.S.)

Floodplain Management Regulations (U.S.C. and A.R.S.)



**National Historic
Preservation Act (U.S.C.)**

**State Historic Preservation
Act (A.R.S.)**

*Provides protection for historic
and cultural resources.*

**State Historic
Preservation Office
602-542-4009
azstateparks.com/SHPO
Subsection 104.12 (7)**



***Traditional Cultural
Properties (TCP)***

**A TCP is a place that is eligible
for inclusion in the National
Register because it has
cultural associations that are:**

- a) Rooted in that community's
history, or**
- b) Are important in maintaining
the continuing cultural
identity of a community.**



**Federal and State Burial
Laws**

*Provides protection and
consultation on places of
religious importance, human
remains, and cultural materials
of native tribes.*

Arizona State Museum

Phone: 520-621-6302

www.statemuseum.arizona.edu



**The Clean Water Act
(U.S.C. & A.R.S.)**

*Provides protection for water quality.
(Sections 401, 402, 404 Regulations)*

U.S. EPA 415-947-8000

ADEQ 602-771-2300

Corp of Engineers 602-640-5385

www.epa.gov/region9

Subsection 104.12 (13)



“Waters of the United States”

According to The Clean Water Act, examples of *Waters of the US* include surface waters (including ephemeral: short lived or transient) such as:

streams	streambeds
rivers	lakes
reservoirs	arroyos
washes	wetlands



Conditions indicating “ordinary high water mark”:

- Vegetation differences between wash corridor and uplands**
- Changes in soil characteristic**
- Impression of water line on bank**
- Shelving or cut banks**
- Presence of litter/debris**
- Sediment deposits**
- Water stains/marks**
- Exposed roots**



The “Tulloch Rule”

“Incidental fallback” into Waters of the US does not require 404 Permit.

- NO side casting.
- NO stockpiling.
- NO grading.
- NO road construction.
- NO bank flattening.
- ONLY rubber tires.



The Endangered Species Act
(U.S.C.)

*Provides protection for
Endangered Species and habitat.*

U.S. Fish & Wildlife
Service Phone: 602-242-021
www.arizonaes.fws.gov

Subsection 104.12 (15)



*What does the Engineer
need to know about
ADOT's environmental
requirements for material
sources?*



Section 1001 MATL
Material Sources:

Subsection 1001-1 (page 1)

Description:

Section applies to the procuring of borrow, sub-base and base materials, mineral aggregates for concrete structures, and mineral aggregates for surfacing (asphalt) materials.



Subsection 1001-1 (1)

DOES NOT APPLY TO:

- CEMENT**
- FLY ASH**
- PRE-CAST CONCRETE**
- LIME**
- MASONRY BLOCK**



***Material obtained from
within existing ADOT
rights-of-way may already
have a current
environmental analysis.***

**Call Ed to confirm.
(602) 920-3882**



Subsection 1001-2 (1)

General:

•Section requires contractor to provide an environmental analysis as specified in 104ENVIR 104.12.

•Environmental analysis approved by the Department later than January 1, 1999 are acceptable.



Definitions:

Two categories of material sources:

**Department-Furnished
(limited)**

Contractor-Furnished

Contractor-Furnished sources include commercial operations and project-specific sources.



*All
Processing Areas
(including batching operations)
developed after
January 1, 2000
must complete environmental
analysis.*



*Who needs
environmental analysis?*

Effective Date	Mining Facilities	Processing Facilities
Pre-2000	YES	NO
Post-2000	YES	YES

*Effective January 1, 2000 –
Existing and New Facilities
need Environmental Analysis.*



Subsection 1001-3.01(B)

General:

“Other than sampling and testing, the requirements of this subsection shall be completed prior to initiation of any activities which disturb the existing conditions at the proposed source.”



Subsection 1001-3.01(B)

General Requirements for Approval:

- **The use of a contractor-furnished source will require written approval by the Engineer.**



Subsection 1001-3.01(C)

Historical and Cultural Resources:

- The Department will not allow use of a source that will have a major adverse impact on cultural or historic resources.



Native Plant Law:

- <40 acres, private land . . . 30 days
- >40 acres, private land . . . 60 days
- State land (any size) 60 days

20-day extension period can be granted.



Subsection 104.12 (page 1)

- The contractor should allow a **minimum** of 30 days to prepare the environmental analysis application prior to submittal to ADOT.
- Typically, the Department needs a **minimum** of 45 days to complete the analysis.



Subsection 104.12 (page 2)

Provides time for an extension to complete the environmental analysis – not to exceed 30 working days.



Subsection 104.12 (page 2)

“An environmental analysis shall address itself to all environmental effects, including, *but not limited to*, the following: . . .”



Subsection 104.12(7) (page 2)

Requires an archaeological survey prepared in a State Historic Preservation Office (SHPO) standardized format, by a person with credentials acknowledged by the Arizona State Museum.



*Qualifications for
archaeologists can be found
in the Arizona Antiquities Act,
A. R. S. § 15-1631 and 41-
841.*

- Graduate degree in anthropology or archaeology.
- Demonstrated ability.
- Specified experience in field.
- Supervisory-level professional experience.



Subsection 104.12(7) (page 3)

- The cultural survey must cover all of the material source application area *and the access or haul road.*



Be Aware!

**Sections 1001Matl
and 104ENVIRO
are not the only
sections of the
Standard Specifications
that apply to
operations at
Material Sources.**



For example:

**Subsection 104.02(12) & (13) (page 3)
addresses prevention of air
and noise pollution.**

**Subsection 104.09 (13) (page 3)
addresses protection of
streams, lakes and reservoirs.**

Know your specifications!





**ENVIRONMENTAL
PLANNING GROUP (EPG)**

*Guidance for preparation of the
environmental
approval documents can be
found at:*

<http://azdot.gov/business/environmental-services-and-planning/environmental-guidance-documents/material-source-guidance>



Cultural Resources—Section 104.12(7)

Who prepared the survey? (Attach 2 copies of survey for initial application.) Survey date: _____

- YES NO Was this cultural survey completed prior to disturbance of the site?
- YES NO Has the exterior access/haul road been included in the cultural survey?
- YES NO Were avoidance areas within the material source Application Area boundaries recommended? IF YES, INCLUDE LETTER COMMITTING TO AVOIDANCE AS PER THE RECOMMENDATIONS IN THE SURVEY.

Visual Surroundings—Section 104.12(9)

Describe the visual surroundings and the impact of the removal of materials on the visual setting:

Noise Receptors—Section 104.12(13)

Describe any noise receptors (i.e. residences, schools, hospitals, businesses and/or churches), distance to these noise receptors, and procedures to minimize impacts on these receptors:

Continue with Checklist Sections on following pages



Checklist Sections—104.12 (8, 10, 11, 12, 14, 15, 16 18)

YES	NO	NA	COMPLIANCE	INITIALS** HANDWRITTEN
			Is this source and access/haul road in compliance with Prime and Unique Farm Land requirements? [104.12(8)]	
			Are there effects on access, public facilities, and adjacent properties; if so, is there mitigation of such effects? [104.12(10)]	
			Will there be a relocation of businesses or residences because of this material source? [104.12(11)]	
			Do you have procedures in place to minimize dust in the excavation area and on access/haul roads, and to mitigate the effects of such dust? [104.12(12)]	
			Is there an impact on the quality and quantity of water discharging from the site (to the surface or subsurface) resulting from the materials operation? [104.12(14, part 1)]	
			Has the potential to introduce pollutants or turbidity to live streams or nearby water bodies, including subsurface aquifer been addressed? [104.12(14, part 2)]	
			Did the analysis for threatened and endangered (T&E) species and designated critical habitat performed for this material source and access/haul road, indicate the operation will impact T&E species, designated critical habitat or wetlands? [104.12(15)]	
			Will there be effects of hauling activities upon local traffic and, if so, are there planned mitigating measures for problems? [104.12(16)]	
			Is the source located within a 100-year floodplain? [1001-2.01]	
			If the source is located within a 100-year floodplain, is it located within one-mile upstream or two-miles downstream from any highway structure (bridge) or surfaced roadway crossing? [1001-2.01]	
			If the source is located within a 100-year floodplain, does removing or stockpiling material create an effect on stream flow conditions, and is there a potential for adverse impacts on existing or proposed improvements that could result from these activities? [104.12(18)]	
			Have any hazardous, toxic, radioactive, or other regulated materials contaminated this source? [1001-4.01(B)(1)]	



ADOT Material Source Environmental Analysis Application (Section 104ENVIR)

Permits Checklist-Section 104.12(17)

YES	NA	PERMITS—MUST BE CURRENT AND UP-TO-DATE	INITIALS** HANDWRITTEN
		Flood Control – District and Permit No.:	
		Clean Water Act (CWA) Section 402 (Stormwater) NPDES	
		AAC, Title 18, Chapter 9 (Arizona Stormwater) AZPDES	
		ADWR Well Permit	
		CWA Section 404 Nationwide – Permit Number:	
		CWA Section 404 Individual	
		CWA Section 404 Water Quality Certification	
		Reclamation Plan per ARS Title 27, Chapter 6	
		Air – Crushing/Screening	
		Air – Asphalt Batch Processing	
		Air – Concrete Batch Processing	
		Arizona Native Plant Removal	
		All Tribal approvals complete?	
		All BIA approvals complete?	
		Land Use Permit – (List Agency: e.g. BLM, USFS, ASLD)	
		Other Permits – List:	

Applicant Signature (**handwritten initials are required in each box in the prior Checklist Sections and where indicated below)

IMPORTANT: If any information given on this application changes in the future please notify ADOT as soon as possible in order to update the file. Initials: _____

Please publish this site on ADOT EPG website list: [] YES or [] NO Initials: _____

Signature: _____

Title: _____

Print Name: _____ Date: _____

Submit Environmental Analysis Application Package to:

ADOT Environmental Planning Group
16111 W. Jackson Street, Mail Drop EM02
Phoenix, AZ 85007

Attn: Ed Green (Phone: 602.920.3882)

Prepared in accordance with ADOT Standard Specifications for Road & Bridge Construction, Section 104ENVIR, (3/17/08)

Page 5 of 5
Updated – 10/11/13



Material Sources Which Have Previously Completed the ADOT Environmental Analysis Process

Contact: Ed Green - Phone: (602) 920-3882 - E-mail: egreen@azdot.gov Current as of: 07/31/2014

The following material sources have previously completed the ADOT Environmental Analysis process including cultural consultation. This list indicates only completion of an initial environmental analysis. An updated Environmental Analysis must be submitted to the Licensed Engineer of each project for approval. The ADOT Engineer will determine whether these and other provisions in the ADOT Specifications have been met for final approval of use of the site.

For inquiries, to find out the specifics of special condition(s), or to report errors in this information, please contact the person shown above. This is not a complete list; please contact the person indicated above for additional information.

Information provided to requester was developed by the Arizona Department of Transportation. The information was developed for internal use. The Department accepts no responsibility for any conditions encountered which may be at variance from information herein.

County/State	Tracking Number	Source Name	Operator	EA Effective	Location
Apache/AZ	CM297	Anderson Zuni Ranch Materials	ALBERT S. & SHIRLEY H. ANDERSON L.L.C.	07/09/1999	T19N, R29E, Sec. 3, N1/2. On US 191, go 18 miles north of St. Johns between MP 333 and 334, then approx. 1/2 mile west of US 191.
Apache/AZ	CM2146	Break of Day Pit	BRIMHALL SAND, ROCK & BUILDING MATERIALS	07/08/2005	T14N, R28E, Sec. 36, SE1/4. Go north on US 191 from St. Johns for about 5 miles, take Apache County Road 6360 West for about 500 ft, site located immediately to the north.
Apache/AZ	CM2144	Brier Bomow Source	FISHER SAND & GRAVEL	02/14/2006	T22N, R26E, Sec. 25, NE1/4. From Sanders, take US 191 approx. 7 miles south; site is immediately east of US 191.
Apache/AZ	CM2330	Brier Bomow Source #1	GREY MOUNTAIN CONSTRUCTION LLC	04/04/2013	T21N, R28E, Sec. 14, 23. Site is west of US 191 approximately 500 south of H-40 Exit 339.
Apache/AZ	CM2331	Brier Bomow Source #2	GREY MOUNTAIN CONSTRUCTION LLC	04/04/2013	T21N, R28E, Sec. 23, NE1/4. Site is west of US 191 approximately 2500 south of H-40 Exit 339. Take US 191 south to Williams Dr., then right on Upper Rim Dr. 400 ft.
Apache/AZ	CM2350	Coyote Creek Pit	JOHNSON CATTLE CO.	06/25/2014	T19N, R28E, Sec. 6, US 191 @ MP 386.3 go east on county road 4162 at "Sommerville Generating Station" sign, approximately 3.2 miles to gate on right @ corn area.
Apache/AZ	CM2316	Chive Plantate - 1990	MEADOW VALLEY CONTRACTORS	03/07/2014	T05N, R10W, Sec. 18. Site is located along US 191 @ MP 448, approximately 1.5 miles northwest of Chive, AZ.
Apache/AZ	CM2040	Cheto Mine	MEADOW VALLEY CONTRACTORS, INC.	12/17/2003	T21N, R28E, Sec. 26. On Clay Mine Rd., approx. 6 miles east of Sanders.
Apache/AZ	CM2038	Hot Plant Site	MEADOW VALLEY CONTRACTORS, INC.	01/09/2004	T22N, R27E, Sec. 4. 9 miles west of Sanders on H-40, north side of McCamee T.J.
Apache/AZ	CM2039	Old US 66 Hot Plant Site	MEADOW VALLEY CONTRACTORS, INC.	12/17/2003	T22N, R31E, Sec. 7, SE1/4. 0.8 miles east of the Hawthorne and H-40 interchange, on old US 66.
Apache/AZ	CM2281	White Mountain Cinder Pit & Plantate	MEADOW VALLEY CONTRACTORS, INC.	06/08/2010	T08N, R28E, Sec. 3, SE1/4. From Eagar, take SR360 east to Cinder Pit Road North, cinder pit is approximately 1 mile north at the end of the road.
Apache/AZ	CM2382	Hall Pit	PERKINS CINDERS, INC.	06/06/2013	T05N, R28E, Sec. 12, NE1/4. From US 60 in Springville, travel south on US 191/160 for approx. 2 miles, turn left on Picnic Creek Rd, travel 0.8 mile and turn left to pit.

**TIPS AND PRACTICAL
STUFF**

- **Make sure the application area matches the cultural and biological survey area (or is a subset of it).**
- **Don't forget the haul road!**
- **Get good maps – make sure they match maps in the cultural survey.**
- **Be sure the archaeologist is qualified and that the report meets standard SHPO requirements.**



**More Tips and Practical
Stuff:**

**If you need help, call
Ed!**

**Ed Green
602.920.3882
Phoenix
egreen@azdot.gov**



MATERIALS GROUP:



ROLE OF MATERIALS GROUP:

- **Build and maintain a network of Department-Furnished sources.**
- **Communicate with private industry, ADOT Construction and Maintenance.**
- **Provide a central location to obtain history, maps, geological data, materials testing, right-of-way information, among others.**
- *Troubleshoot.*



MATERIALS GROUP
EXPERTISE:

- **General knowledge of geology of the State and locations of past and present material sources.**
- **General knowledge of environmental rules and regulations.**
- **Knowledge of right-of-way acquisition.**
- **Knowledge of drafting and aerial photograph interpretation.**



ADOT MATERIAL SOURCE
SITE OPERATION
RESPONSIBILITIES:

ADOT Construction:

- **Ensures the provisions of the environmental analysis, mining and restoration plan, license and permits are carried out.**
- **Reviews the mining and restoration plan prior to usage of the site.**
- **Coordinates with contractors and land owners.**
- *COMMUNICATES*



ADOT MATERIAL SOURCE
SITE OPERATION
RESPONSIBILITIES:

ADOT Maintenance:

- Ensures all operations are in accordance with the requirements of the environmental analysis and license.
- Submits quarterly production reports to ADOT Materials Group regardless if site was used or not.
- *COMMUNICATES*



ADOT MATERIAL SOURCE
SITE OPERATION
RESPONSIBILITIES:

Private sector:

- Adheres to requirements of environmental analysis, mining and restoration plans, licenses, and all regulations governing material sources.
- Submits mining and restoration plans to land owner and ADOT for review prior to any use of the site.
- *COMMUNICATES*



MATERIALS GROUP STAFF

**1221 West 21st Avenue
Phoenix, AZ 85009**

Dale Choyeski, TET 3

phone: 602-712-8558



Questions?

**(What was that
all about ??)**



Thank you!



Final "Tulloch" Clarification: Enhanced Wetlands Protections(1)

Sources: <http://www.epa.gov/owow/wetlands/dredgedmat/dredmat.html>. Jeffery Zinn and Claudia Copeland, Resource, Science and Industry Division. *Wetland Issues*. Updated June 14, 2001. CRS IB97014. Environmental Law Institute. *National Wetlands Newsletter*, Vol. 23(1), January-February 2001.

The Environmental Protection Agency (EPA) and the U. S. Army Corps of Engineers (the Corps) have promulgated a final regulation to strengthen wetlands protection, which went into effect on April 17, 2001. The new rule will stem the loss of the Nation's wetlands by clarifying the types of activities that are likely to result in a discharge of dredged material regulated under the Clean Water Act (CWA). The agencies estimate that since 1998 at least 20,000 wetland acres have been targeted for ditching, draining, and destruction and 150 miles of streams channelized because of a regulatory loophole.

Background

Wetlands provide a number of economically and environmentally important functions such as flood control, water quality protection, groundwater recharge, spawning areas for commercially important fish, and wildlife habitat. The CWA requires a permit before dredged or fill material may be discharged into wetlands. This permit program ensures that the environmental impacts of proposed discharges are minimized, and that unavoidable impacts are offset through compensatory mitigation efforts such as wetlands restoration.

Each year, valuable aquatic resources are lost due to mechanized land clearing, ditching and drainage, and in-stream mining or channelization activities in wetlands or other waters of the United States. In 1993, EPA and the Corps issued a final regulation (commonly referred to as the "**Tulloch rule**") to revise the definition of "discharge of dredged material" to better protect wetlands from these practices. A 1998 court decision, however, found that EPA and the Corps lacked authority under the Clean Water Act (CWA) to regulate such activities if conducted so as to result in only "incidental fallback" (excavated material that falls back to substantially the same place as the initial removal). In May 1999, EPA and the Corps issued a final rule modifying the definition of "discharge of dredged material" in order to respond to the Court's finding and to ensure compliance with the Court decision. In August 2000, EPA and the Corps proposed further revisions that were finalized and went into effect on April 17, 2001. The Bush Administration initially stayed implementation of the rule pending further review, but in April 2001 stated it would allow the rule to stand.

Since the 1998 court decision, there has been confusion as to what activities are likely to result in discharges regulated under the Clean Water Act. Since the decision's release, upwards of 20,000 wetland acres have been targeted for ditching, draining, and destruction and approximately 150 miles of streams channelized without environmental review under the CWA, and without compensatory mitigation. The final rule seeks to stem such losses by clarifying the scope of activities that typically produce discharges subject to environmental review under the Act.

Final Revisions

The final rule (published at 66 Fed. Reg. 4549) by EPA and the Corps modifies the definition of "discharge of dredged material" by further specifying what types of activities the agencies consider to result in regulable discharges, based on the nature of the equipment and agency experience. The rule indicates that the Corps and EPA regard the use of mechanized earth moving equipment to conduct landclearing, ditching, channelization, in-stream mining, or other earth-moving activity in waters of the U.S. as resulting in a discharge of dredged material, unless project-specific evidence shows that the activity results in only "incidental fallback." The rule also provides a definition of what constitutes non-regulable incidental fallback that is consistent with the Court decision.

A number of states have wetlands protection programs, some of the programs specifically regulate ditching and drainage activities. Such state law "backstops" can help stem ditching and drainage of wetlands within these particular states.

The rule does not affect a discharger's obligation to obtain a §404 permit for any discharge into waters of the U.S. This final rule identifies what types of activities are likely to give rise to an obligation to obtain such a permit under the definition of "discharge of dredged material" contained in the agencies' existing regulations.

Supreme Court Decision Limits Regulatory Protection for Isolated Wetlands

Sources: USEPA Office of Water, EPA-843-F-01-00, revised April 2001. Environmental Law Institute. National Wetlands Newsletter, "Special Focus on the SWANCC Decision," Vol.23(2), March-April 2001. Robert Meltz and Claudia Copeland, Congressional Research Service. The Supreme Court addresses Corps of Engineers Jurisdiction over "Isolate Waters": The SWANCC Decision. February 16, 2001, RL30849.

In January 2001, the US Supreme Court issued a significant new ruling pertaining to the scope of regulatory jurisdiction under the Clean Water Act (CWA); Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178 (January 9, 2001), "SWANCC" involved statutory and constitutional challenges to the assertion of CWA jurisdiction over isolated, non-navigable, intrastate waters used as habitat by migratory birds.

Although the *SWANCC* case itself specifically involved §404 of the CWA, the Court's decision affects the scope of regulatory jurisdiction under other provisions of the CWA as well, including the §402 NPDES program and the §311 oil spill program. Under each of these sections, the EPA and the U.S. Army Corp of Engineers (the Corps) assert jurisdiction over "waters of the United States." CWA § 502(7). The significance of the Court's ruling lies in its potential implications for defining "waters of the United States." Accordingly, the following discussion applies to any program that involves "waters of the United States" and is relevant to any federal, state, or tribal staff implementation of §§402, 404, 311.

In its 5-4 decision, the Supreme Court held that the Corps exceeded its statutory authority by asserting CWA jurisdiction over "an abandoned sand and gravel pit in northern Illinois which provides habitat for migratory birds."

While the Court's actual holding was narrowly limited to the EPA and Corp's regulation of "nonnavigable, isolated, intrastate" waters based solely on the use of such waters by migratory birds, the Court's discussion was wider ranging, going as far as to note where federal jurisdiction under the CWA is not in question. The Court clearly recognized the CWA's assertion of jurisdiction over traditional navigable waters and their tributaries and wetlands adjacent to them, and then subsequently focused on whether the wetlands giving rise to the litigation met that definition.

EPA and the Corps regulations define adjacent to mean "bordering, contiguous, or neighboring," and recognize that adjacent wetlands may be separated from other water by uplands, including man-made barriers such as berms.¹ In 1985, the Supreme Court concluded in *United States vs. Riverside Bayview Homes* (474 U.S. 121) that federal jurisdiction over wetlands did not require a hydrological connection between the wetlands and other water through flooding from navigable waters. In other words, the groundwater connections between wetlands and rivers, streams, or other waters was recognized as an important reason for regulating development in such wetlands. Among the grounds the agencies historically have used for regulating wetlands is whether the migratory bird rule applies – that is, whether birds use the wetlands for feeding, breeding, shelter. In this case, the Supreme Court specifically determined that using the Migratory Bird Rule to regulate wetlands that did not extend across state lines was beyond the level of

¹ Carter, Derb. Supreme Court Decision Defies Common Sense and Intent of Congress. In National Wetlands Newsletter, V.23(2), March-April 2001.

jurisdiction intended by Congress when it enacted the CWA. But, the Court's decision leave uncertain whether the EPA or Corps can regulate actions affecting "isolated wetlands" and how to correctly determine whether a wetland is "adjacent" to navigable waters or "isolated."²

Following the SWANCC ruling, EPA and the Corps staff charged with wetlands oversight programs and permitting are no longer asserting regulatory jurisdiction under the CWA solely on the basis of use of waters or wetlands as habitat by migratory birds where the waters are isolated (e.g. prairie bogs, playa lakes, seasonal ponds and streams, mudflats and sandflats), nonnavigable, or intrastate (if a waterbody crosses state lines, the interstate commerce clause provides a mechanism for regulating its use).³ The Court's decision does not prevent EPA or the Corps from asserting jurisdiction over wetlands that fall under the criteria giving rise to the lawsuit, but the rationale for doing so must now include other regulable conditions, which for many seasonal ponds and waterbodies becomes more difficult. At the same time, the narrow interpretation of the Court's ruling by EPA and the Corps may lead to more legal challenges.

Although the extent of the court's ruling is still under debate, it is estimated that the decision could effect more than 20% of remaining wetlands. This includes the vast majority of prairie potholes, playas, vernal pools, forested wetlands surrounded by uplands, and many other wetlands that do not have a direct surface water connection to open waters. In addition to leaving these wetlands vulnerable to drainage and filling, it is uncertain whether discharges of pollutants into these waters would be regulated. Since many wetlands serve as groundwater recharge areas, and/or have some connection to other waterways, such discharges of pollutants could seriously contaminate surface and drinking water supplies.

The impact on wildlife species could be extensive. Loss of a significant portion of the remaining prairie potholes may have devastating impacts on populations of several species of waterfowl and shorebirds. Many salamander species breed only in spring-flooded, forested pools that are now unprotected by federal law and many of the states lack the resources to adequately regulate isolated wetlands. Numerous other wildlife species will be directly affected through habitat loss or indirectly impacted decreased water quality since these "isolated" wetlands frequently filter pollutants from surface water that would otherwise flow into streams, lakes and rivers.

² Ibid.

³ G. Guzy, General Counsel, USEPA, and R. Andersen, Chief Counsel, USCOE, Memorandum re Supreme Court Ruling Concerning Clean Water Act Jurisdiction Over Isolated Waters (January 19,2001).