

# Desert Episodic Streams- The Regulatory Framework

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# Episodic Streams

- Purpose: brief tour, w/ desert focus
- Federal/state/local
  - shared regulatory burdens
  - creative federalism--under pressure
- Renewable energy land rush
  - CA AB 32 and RPS
  - Federal--2005 Energy bill
  - ARRA subsidies, tax credits

# Development Pressures

- Large scale solar— a new desert land use
  - High solar insolation (esp. Mojave Desert)
  - Plants require vast, contiguous tracts (5000 acres)
  - Transmission linkage
  - Public lands sought (1mm ac)--via rights of way
  - Exclusions--wilderness, DWMMAs, ACECs
  - But many sites are on fans, bajadas
- OHVs, grazing, ag, mining, development, invasives--still at play



# Desert Renewable Energy

- AB 32--2006 climate change legislation
  - survived recent vote (Prop 23)
  - 25% of GHG emissions from generation
- RPS: 20% by 2010, 33% by 2020
- Federal goal (2005) 10k mw on public lands
  - Solar, wind, geothermal
- Alternative solar technologies
  - All require lands devegetated, bladed flat

# The Regulation of “Dry” Waters

- Definitional and framing issues
  - What is subject to regulation?
  - Who regulates?
  - What is required?
- Regulatory foundations:
  - listed species, environmental assessment, “wet” waters, land use planning
- Episodic streams, washes--direct regulation
  - Federal jurisdiction limited
  - State--streambed alteration law



# Episodic Streams

- CA and US--
- Both regulate solar plant siting
- But requirements overlap, can conflict
  - E.g. mitigation rules
- MOUs define collaboration
- Principal laws--CA mirrors, imperfectly, US
- CA unusual case

# Federal Land Use

- BLM manages target desert lands
- FLPMA 1976/CDCA Plan 1980
- Regional plans (NEMO, WEMO...)
  - Define/limit federal land use
  - little provision for renewable energy
- Driven by single species—tortoise
  - Recovery plans
- BLM overwhelmed by solar applications

# State Regulation

- CEC controls 50 MW +renewable energy permitting, except PV
- Counties regulate small solar, PV
- CEC: CEQA-substitute process
- All lands in state covered
- CA DFG/CEQA rules applied
  - BLM usually adopts CEC/CEQA analysis

# Environmental Assessment

- NEPA and CEQA
  - Assess impacts, broadly
  - Direct and indirect, cumulative
- Mitigation hierarchy applies
  - Avoid, minimize/restore, compensate
- CEQA---"fully mitigate"
- NEPA—full disclosure, not substantive
  - But explore alternatives, mitigation

# Endangered Species Laws

- Fed/state species acts similar
  - species lists differ
  - CEQA includes effects on “rare” (special, sensitive, candidate, etc)
  - “take” of listed species, habitats illegal, but
    - incidental takes authorized by permit
- FESA—Sections 7 and 10
  - Federal permits--Section 7 consultation
  - Private lands--Section 10/ HCPs



# Endangered Species Laws

- Single species > ecological systems
  - Habitat Conservation Plans
  - Natural Community Conservation Plans
  - Cover multiple species, habitats
- Proposal: Desert Renewable Energy Conservation Plan
  - Define siting areas, mitigation requirements
  - Expedite permitting
  - Would include multiple species, habitats
  - State and federal ESA coverage

# Water/Streambed Laws

- Federal: Clean Water Act
  - Section 402 (WQ certifications)
  - Section 404 (Dredge and Fill--wetlands)
- State: Lake & Streambed Alteration Law
  - CDFG administered
  - “Waters of the State” includes intermittent streams, desert washes

# Blythe (BSPP) Project

- Eastern Riverside County--Palo Verde Mesa
- 9400 acres/ (4) plant(s)/ total 1k MW
  - concentrating solar/parabolic mirror
  - 7175 acres disturbed, 8 mm cu.yds moved
  - all natural drainages replaced
  - eliminate all native plants and wildlife
  - construction over 6 years
- Approvals: CEC and BLM (MOU--SA/DEIS)
- Analysis/decision documents huge

# Approval Conditions

- State waters: 550+ acres “affected”
- CDFG Streambed Alteration
  - Desert dry wash woodland, vegetated ephemeral swales, unvegetated washes
- Mitigation--
  - acquire 1385 ac off site at 3:1 offset ratio
  - fee or easement
  - avoid major wash, BMPs, other minimization
- Not “Waters of the US”--remote

# Conclusions

- Arid streams--directly regulated as state waters
- Federal-state review/permitting process
  - Combine use of NEPA, ESA, CWA
  - Can result in broad protection of habitats and ecological systems
- But, significant destruction of desert washes and intermittent streams
- Mitigation may not adequately compensate for losses
- HCP/NCCP should look to ecosystem values

