

**The Delta, peripheral canal, and the future of California.
PBG 250B, CRN 54448 (4 units) or ECL 290, CRN 30013 (2 units)**

Lead Instructors: Peter Moyle + Jay Lund (Carole Hom, coordinator)

Enrollment: 16-20 active participants

M 4:10-6pm, 1130 Bainer Hall

F 10-11:50am, 127 Wellman Hall

Overview:

The focus of this class will be to provide an integrated view of Delta, its past, and its future, with a final debate on the social, environmental, economic, and political consequences of building – or not building – a peripheral canal.

Specifics:

The Sacramento- San Joaquin Delta is the physical heart of California. Not only is it the center of the Central Valley and the upper part of the iconic San Francisco Estuary, but it is a major node of for California's water delivery system, sending water to the Bay Area, the San Joaquin Valley, and Southern California urban areas. It is also central to controversies over water for fish vs. humans, with enormous economic and ecological consequences. In 1982, the voters of California overwhelmingly defeated a proposition to build a canal around the Delta to deliver water more effectively to southern users. This defeat was unexpected by the water community and reverberates in water policy to the present day. Today the Delta is undergoing rapid environmental change that has helped to create 5 endangered species of fish and collapse of fisheries. Another major change in the system is predicted to happen within the next 50 years, which will push salt water to the pumps that send water south, greatly reducing water export quality and quantity. This has brought the idea of a peripheral canal to the fore again, in part as the result of two reports by an interdisciplinary team of UC Davis biologists, economists, engineers, and a geologist, published by the Public Policy Institute of California.

In this class, we will read and evaluate these reports, talk with experts from inside and outside the University, and read of the background material the UCD-PPIC team also produced, as well as a new report from the CalFed Science program.

Class structure:

1. On **Mondays, 4:10-6pm**, there 60 minute presentation by an expert, followed by a discussion.
 - a. In the discussion, students will act as members of a narrow interest group and ask the speaker ridiculous questions.
 - b. With 2-4 outside speakers, there will be an informal dinner for 10-12 students
 - c. The seminar will be open to the public and taped or simulcast for those who missed it and for the record.

2. On **Fridays, 10-11:50**, there will be a student seminar in which two students will
 - a. summarize the high points of the earlier seminar
 - b. present additional information from the reading
 - c. put their own spin on what they learned and provide suggestions for solutions to problems.
 - d. If there is no Monday seminar, then the discussion will be based on topics selected by students with assistance from core faculty.

- e. Jan 9 will be an organizing class in which Moyle et al. provide a general discussion, based on reading Healey et al. (2008)(available in class on 5 Jan).
- 3. We will have **1-2 brownbag lunches** (time TBA) to be scheduled to compensate for Monday holidays. These will be used to discuss writing assignments for PBG 250B.
- 4. The final class session will be a 2 hr hearing on building a PC, with two interdisciplinary teams, pro and con.
- 5. **Assignments** for all participants
 - 1. Read PPIC reports #1 & 2
 - 2. Read Healey, M., M. D. Dettinger, and R. B. Norgaard, editors. The State of Delta Science. 2008. Sacramento: CalFed Science Program. 174 pp
 - 3. Lead a Friday discussion and participate in Monday discussions

For PBG 250B students only:

- 3. Short paper dealing with how considerations from some discipline (i.e., one of the lecture topics) affect the Delta
- 4. Op-ed (650 words) on peripheral canal or similar topic (collaboration OK)
- 5. Fact sheet (2 pages) on PC for legislators (collaboration OK)
- 6. Participate in mock legislative hearing (two interdisciplinary teams, pro and con)
- 7. Participate in field trip to Delta

Tentative schedule

Monday		Friday	
5 Jan	Intro to the Delta, Moyle/Lund	9 Jan	Discussion
12 Jan	Environmental change, Mount	16 Jan	Discussion, 2 seminars
19 Jan	Holiday	23 Jan	Discussion 2 seminars
26 Jan	Environmental history, Warren	30 Jan	Discussion 2 seminars
2 Feb	Economics, Howitt/Hanak	6 Feb	Discussion 2 seminars
9 Feb	Governance, Doremus	13 Feb	Discussion 2 seminars
16 Feb	Holiday	20 Feb	Discussion 2 seminars
23 Feb	Endangered species, Bennett, Lubell	27 Feb	Discussion 2 seminars
2 Mar	Managing water and salinity, Fleenor	6 Mar	Discussion 2 seminars
9 Mar	Integrating science, policy, mgt, Dahm & Luoma	13 Mar	Discussion 2 seminars

Field trip: weekend, TBA

Final exam: **Wed 18 March, 10:30am-12:30pm** Peripheral Canal debate