From: Charles Gardiner
Sent: Thursday, March 15, 2012 08:19 PM
To: Isenberg, Phil@DeltaCouncil
Cc: Grindstaff, Joe@DeltaCouncil
Subject: Delta Levee Priorities

Following up on your questions today about setting levee priorities, here are a few ideas that you can use immediately in your discussion Friday morning:

There are three approaches that could yield a list of immediate priority levee investments that the Stewardship Council could include in the Delta Plan within 1 month:

1. Use existing proposed priorities for immediate investment. This approach would simply list the following current proposals for immediate investment. These proposals already have willing sources of local matching funds (Reclamation Districts and water supply agencies) and could be funded through the State's capital budget, as adjusted in the May revise.
    a. Current DWR project solicitation for projects to achieve the HMP level on half of the remaining 53 islands that don't meet this minimum standard – $50M for this year (add $50M for next year?)
    b. Urban water agencies' proposal for levee security for the urban water supplies (remainder of East Bay MUD aqueduct protection, CCWD intake protection, and Middle River corridor) – $163M
2. Use a very simplified assessment of which critical infrastructure needs to be protected. The simplified assessment would look at two readily available pieces of information:
    a. The number of infrastructure facilities protected by each island (Bob Pyke's blue Delta map from the ESP, attached)
    b. The current level of protection afforded by the existing levees (HMP, PL 84-99) and the cost to get to PL 84-99.
3. Use a slightly more sophisticated assessment of the costs and benefits of levees improvement using existing information or priorities from facilities experts (considering importance, consequence, and recovery). A simple spreadsheet could list each island and the relative value, benefit, cost, or consequence for each of the following parameters to develop a ranking of islands. Relative value weightings among the parameters could be applied by the Stewardship Council.
    a. Population
    b. Productive land value (using ESP's analysis)
    c. Value for water supply infrastructure (priority rating from water agencies)
    d. Value for electricity transmission infrastructure (priority rating from PG&E)
    e. Value for natural gas transmission and storage infrastructure (priority rating from utilities)
    f. Value for transportation infrastructure (priority rating from Caltrans and CalEMA)
    g. Value for ecosystem (priority rating from environmental resource specialists)
    h. Cost to achieve desired level of protection (flood or seismic)

Each of these approaches could be implemented within one month without having to wait for your staff or DWR to develop sophisticated analytic tools. More refined priorities could be developed in the next few years.

Approach 1 has political support from water users, Delta counties, and San Joaquin Valley counties, but it doesn't have much technical rigor. Approaches 2 and 3 create more objective analysis and rationale for the priorities, but may not generate results that are universally supported unless it is done in close coordination with key interests so everyone understands the approach and methodology.

Those are some quick thoughts to inform your discussion. I hope they help. Let me know if you would like me to work with your staff to flesh these out. I'll have a letter next week with the results of our roundtable discussion.

Best wishes,

Charles

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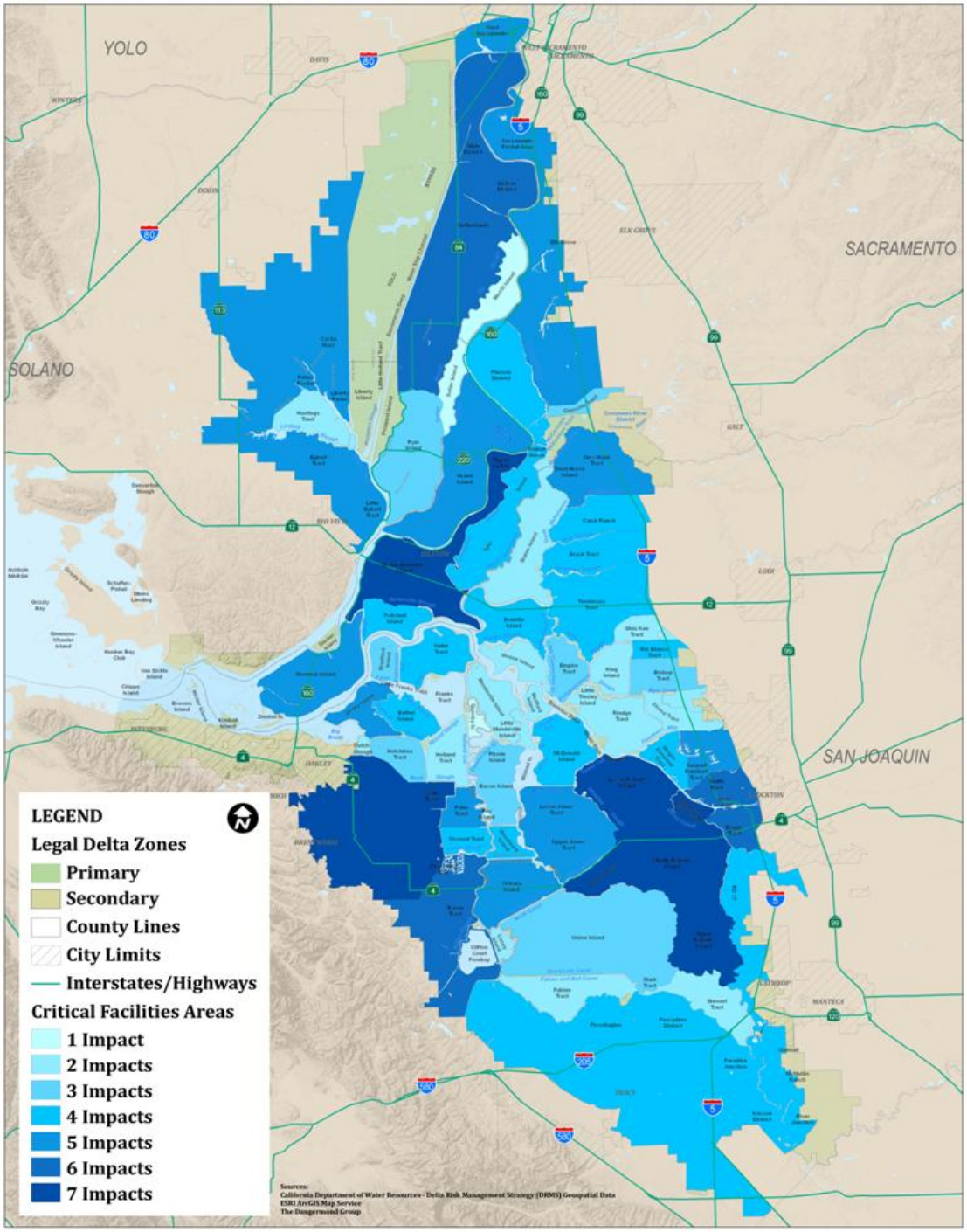
YOLO
SACRAMENTO
SOLANO
SAN JOAQUIN
LEGEND
Legal Delta Zones
Primary
Secondary
County Lines
City Limits
Interstates/Highways
Critical Facilities Areas
1 Impact
2 Impacts
3 Impacts
4 Impacts
5 Impacts
6 Impacts
7 Impacts
Sources:
California Department of Water Resources - Delta Risk Management Strategy (DRMS) Geospatial Data
ESRI ArcGIS Map Service
The Dangermond Group