

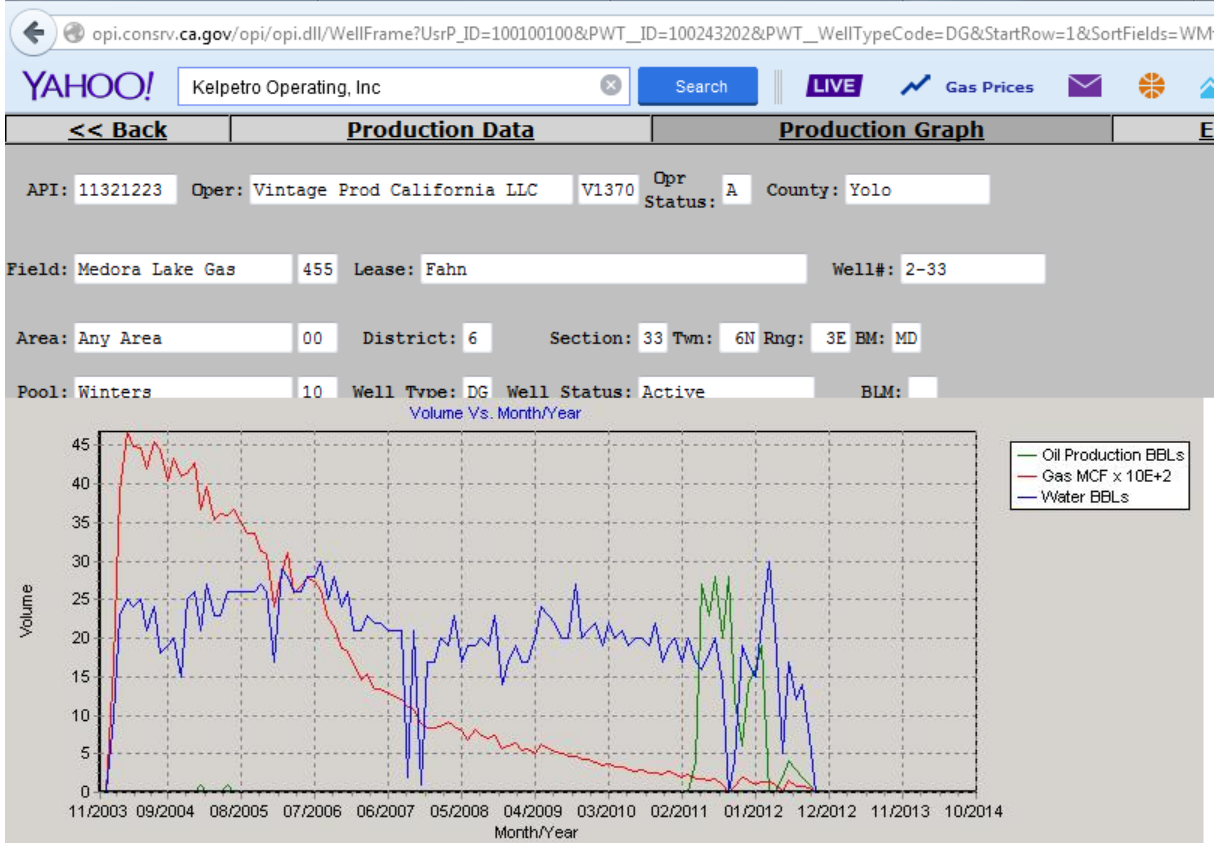
BARRIERS TIMELINE: VIDEO AND LINKS DRAFT 5/1/15

1850	<p>Locate the three waterways that are the subject of barrier proposals</p> <p>http://deltarevision.com/1840-1879_docs/00894049.jpg</p> <p>http://deltarevision.com/Delta_maps/maps_1823to1859.htm lots of maps</p> <p>http://deltarevision.com/surveys_of_sacramento_san_joaquin_delta.html</p>
1880s	<p>Minimum flows in the North Delta</p> <p>Hall irrigation maps http://deltarevision.com/maps-surveys/1840-1900surveys/1886delta2.pdf</p>
1906	<p>Look at survey maps of each location: http://deltarevision.com/atwater_survey.html</p> <p>http://www.lib.utexas.edu/maps/topo/california/txu-pclmaps-topo-ca-courtland-1906.jpg Sutter 1906</p> <p>Sutter Slough http://deltarevision.com/maps-surveys/1982-atwater/atwater-4-sutter-ryer-grand-steamboat-sacramento.pdf</p> <p>Steamboat Slough http://deltarevision.com/maps-surveys/1982-atwater/atwater-7-steamboat-slough-ryer-grand-sutter.pdf</p> <p>http://deltarevision.com/maps-surveys/1982-atwater/atwater-6-riovista-grand-ryer.pdf</p> <p>http://www.lib.utexas.edu/maps/topo/california/txu-pclmaps-topo-ca-isleton-1908.jpg Steamboat Slough “Isleton”</p> <p>http://www.lib.utexas.edu/maps/topo/california/txu-pclmaps-topo-ca-rio_vista-1908.jpg Lower Steamboat and Sacramento Rivers</p> <p>False River http://deltarevision.com/maps-surveys/1906-sanjoaquin/1906sj_survey.pdf</p> <p>http://www.lib.utexas.edu/maps/topo/california/txu-pclmaps-topo-ca-jersey-1908.jpg</p>
1930s	<p>Federal built State Water project to send water to California and the “Project levees”</p> <p>http://deltarevision.com/maps-surveys/1901-1999surveys/1935soils.jpg</p>
1950s	<p>Only surplus water will be sent to the Central Valley http://deltarevision.com/1940-1979_docs/surpluswater.jpg</p> <p>http://deltarevision.com/maps-surveys/1901-1999surveys/1945-usbr-ca-resources-development.pdf loads slowly</p> <p>Keep the Delta fresh promise: http://deltarevision.com/1940-1979_docs/1944_delta_salinity_problem.jpg</p> <p>http://deltarevision.com/1940-1979_docs/1945_swp_survey_plans.jpg</p>
1950's	<p>http://deltarevision.com/1940-1979_docs/1941_california_oil_and_gas_map_ad.jpg oil and gas in CA</p> <p>http://deltarevision.com/timeline.htm</p>
1977	Sutter Slough barrier impacts
1982	NDWA contract to protect water flow, water quality and water rights of the North Delta land owners
1998	<p>New method of gas and oil exploration and the race for surface water transfers: map of Delta gas and Delta “restoration” areas</p> <p>http://deltarevision.com/fracking/horizontalfrackingbreakthrough.jpg</p> <p>http://deltarevision.com/timeline.htm</p> <p>http://deltarevision.com/deltagasexploration.html</p>
2000	CalFed & In-Delta water storage AND CONVEYANCE ACTIONS

	http://www.deltarevision.com/maps/restoration_plans_experiments/2001central_canal_plan.jpg http://www.deltarevision.com/2011/calfed/2003_conveyance_plan_nd.jpg http://www.deltarevision.com/2011/calfed/2007_thru_delta_usgs-drms.jpg http://www.deltarevision.com/maps/2001dwr_boating_limits_map.jpg CALFED did NOT propose closing off Steamboat and Sutter Sloughs http://deltarevision.com/maps/conveyance-canals/2012canal_building_blocks.jpg
2000	CALSIM Developed. Questions regarding flow calculations which would affect actual flows in the Delta. CALSIM SCHEMATIC:
2001	Planning salmon migration studies http://baydeltaoffice.water.ca.gov/modeling/deltamodeling/models/dsm2v6/DeltaFlowsDataSeminar.pdf page 17 http://www.usbr.gov/mp/scao_new/west_sjv/grassland/documents/annual_rpt_2001-02/chapter_01.pdf grasslands dump into sj page 2
2002-2004	IDS studies and results: Jones Tract incident. Barrier and gate designs http://www.deltarevision.com/maps/current-proposed/2005_in_delta_storage.jpg http://www.deltarevision.com/maps/in-Delta_storage/2004-indelta_storage.jpg http://www.deltarevision.com/maps/conveyance-canals/West_Staten_Detention.jpg http://www.deltarevision.com/2011/calfed/web_bacon_ids.jpg http://www.deltarevision.com/2011/calfed/1980s_delta_wetlands_storage.jpg http://www.deltawetlandsproject.com/ Sdip http://www.deltarevision.com/maps/conveyance-canals/sdip_update.jpg Thru-delta http://www.deltarevision.com/2011/calfed/2002_delta-corridors-projects.jpg Conveyance-calfed http://www.deltarevision.com/maps/conveyance-canals/conveyance_options_2003.jpg
2000-2014	Groundwater quality studies: http://geotracker.waterboards.ca.gov/gama/gamamap/public/default.asp?findaddress=True&city=Davis http://geotracker.waterboards.ca.gov/gama/gamamap/public/linechart.asp?dataset=DHS&global_id=W0604800561&locid=4800561-004&parlabel=AS or http://geotracker.waterboards.ca.gov/charts_cache/54CE5815-C52F240A.pdf http://geotracker.waterboards.ca.gov/charts_cache/54CE5875-037A26F1.pdf http://geotracker.waterboards.ca.gov/charts_cache/54CE5815-C52F240A.pdf 2010 shows huge increase!
2004	MWD call to action and the CalFed name game http://www.deltarevision.com/2004_docs/wptf20040408_deltapack.pdf Calibration of flows: http://baydeltaoffice.water.ca.gov/modeling/deltamodeling/models/dsm2v6/DeltaFlowsDataSeminar.pdf page 22, 29
2004	State Lands Commission grants a lease to natural gas exploration companies to do exploration under the bed of the Sacramento River and Steamboat Slough http://deltarevision.com/2006_docs/2006FloodedIslandPre-FeasibilityStudyReport.pdf flooded islands study page 19 and 20 http://www.deltarevision.com/maps/restoration_plans_experiments/2005sdip_barrier_rendering.jpg
?	http://www.usbr.gov/mp/nepa/documentshow.cfm?doc_id=2018 Study on the split of Steamboat and Sutter flows from 1976 to 1991
2004	http://www.usbr.gov/mp/mp150/envdocs/trinity_seis/App_G-5.pdf Use of Calsim modeling to make decisions
2005	DSM2 computer modeling using CALSIM I and II data, with assumed Sacramento River EC fixed at 150.

	<p>DSM2 schematic: http://www.water.ca.gov/waterquality/drinkingwater/public_docs/Miscellaneous%20RTDF%20Information%20and%20Materials/ Actual EC of the Sacramento River: http://www.water.ca.gov/waterquality/drinkingwater/public_docs/Archive%20Delta%20Fingerprints/Fingerprints%202014/</p>
2006	<p>Eco-crescent Delta and “our water”-MWD presentations http://www.science.calwater.ca.gov/pdf/workshops/workshop_dci_presentation_03_majors.pdf Pages 2 and 7 etc http://www.deltarevision.com/maps/2008BizWaterCoalitionStakehldr_Fig1.pdf gates and CALFED maps variable delta: http://deltarevision.com/maps/restoration_plans_experiments/2007_USBR_USGS_DWRmap.jpg http://deltarevision.com/images/pdfs/2006Delta_Charterette.pdf page 15 maps used http://www.deltarevision.com/maps/restoration_plans_experiments/2006historical%20inundationsdwr.pdf incorrect data http://www.deltarevision.com/maps/restoration_plans_experiments/2009-other-ryer-urs.pdf http://www.deltarevision.com/images/maps/100_yr_flood.pdf inconsistency http://deltarevision.com/maps/barriers_gates/barrier_gates_maps.htm collection of barriers and gates maps and plans http://www.deltarevision.com/maps/barriers_gates/barrier_gates_maps2.htm even more maps and documents http://deltarevision.com/Delta_maps/maps/barriers_gates/3_mile_slough_gates.jpg http://deltarevision.com/Delta_maps/maps/barriers_gates/usbr_2gates_details2.jpg gate or barrier example</p>
2006	<p>http://www.dwr.water.ca.gov/storage/docs/In-Delta%20Project%20Docs/FINAL_Supplemental_In-Delta_Report.pdf</p>
2006	<p>DRMS Phase 1 and 2 raw data distribution & the “Armored pathway” http://deltarevision.com/maps/conveyance-canals/thru_delta_plan.jpg URS plan http://www.deltarevision.com/maps/current-proposed/thru_delta_plan.pdf http://www.deltarevision.com/maps/current-proposed/armored_pathway_plan.pdf http://www.deltarevision.com/2011/calfed/2007_4-gates_armored_pathway.jpg</p>
2006	<p>Fish migration pathways: predator sites map http://deltarevision.com/maps/fish/migration.jpg http://deltarevision.com/maps/fish/2010fish_studies.jpg http://snugharbor.net/images2012/deltastuff/dcc-ss-effect.jpg http://deltarevision.com/maps/fish/EWA_2006_review_bureau_112806.pdf http://deltarevision.com/2006_docs/2006-2007_Delta_survival_report.pdf http://deltarevision.com/maps/fish/2010_fish_migration_pathways_study.jpg http://www.deltarevision.com/2011/calfed/delta_corridors2009.JPG http://deltarevision.com/maps/fish/fish_routes.jpg 2007 routes http://www.science.calwater.ca.gov/pdf/workshops/SP_workshop_variable_bureau_061107.pdf page 28</p>
2006-2007	<p>http://www.water.ca.gov/deltainit/docs/goals.pdf http://www.water.ca.gov/floodmgmt/docs/Delta_EOP_Concept_Paper-March_2007.pdf April 2007 DWR response to FLOOD or EARTHQUAKE</p>

	<p>Who ordered studies for “earthquake emergency? MWD http://www.water.ca.gov/floodsafe/fessro/levees/drms/docs/DRMS_Phase2_Report_Section21.pdf http://www.water.ca.gov/floodmgmt/docs/DeltaEOPPublicDraftIS-MND_20071026.pdf</p>
2007	<p>Emergency Freshwater pathway due to earthquakes and the “dendritic Delta” http://www.science.calwater.ca.gov/pdf/workshops/workshop_dci2_presentation_07_herbold.pdf http://snugharbor.net/images2012/deltastuff/2007-usgs-schmute-delta.jpg http://www.water.ca.gov/waterconditions/docs/EmergencyChannelClosureLocationReport-FINAL-June2012.pdf page 7 http://ryerisland.com/DRMS_wrong_on_ryer_island.htm DRMS and the false Ryer data http://ryerisland.com/images/floods/DRMSf1_wrong_on_Ryer.pdf</p>
2007	<p>Bathymetry of the North Delta waterways: Steamboat Slough http://www.science.calwater.ca.gov/pdf/workshops/SP_workshop_variable_bureau_061107.pdf page 15 and thereafter</p>
2008	<p>Bathymetry of Steamboat Slough and the in-water berm or barrier http://dsm2bathymetry.appspot.com/?lat=38.180451630896805&lng=-121.65814144611358&z=15 http://www.water.ca.gov/waterconditions/docs/EmergencyChannelClosureLocationReport-FINAL-June2012.pdf page 16 false Steamboat info http://dsm2bathymetry.appspot.com/ http://snugharbor.net/sacramento_river_barrier.html 2008-2014 water depths http://snugharbor.net/images-2014/news/barriers/ssbathymetry.pdf timeline video showing the in-water barrier already there: http://snugharbor.net/steamboatobstruction.htm</p>
2008	<p>http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=3462 USBR notice of planning gates</p>
2009	<p>Proposed Emergency rock piling for <i>flood protection</i>. DWR planning for barriers but documents only provided to public in 2014. http://www.deltarevision.com/2011/calfed/4-gate_makes_south_delta_reservoir.jpg draft new delta plan map...improved: http://www.deltarevision.com/maps/restoration_plans_experiments/2009_New_Delta_Plan_map.pdf</p>
2010	<p>Sacramento River waterflows into Georgiana Slough are unaccounted for</p>
2010	<p>http://www.usbr.gov/mp/frankstract/docs/NoCDIS_IAIR_Final_2010-06-15.pdf Franks Tract gates</p>
2011	<p>http://www.deltawetlandsproject.com/ Documents related to USACE meeting regarding creating in-Delta water storage http://www.deltawetlandsproject.com/pou-eir-2010/15_AppA_IDS-M-Tech-Memo_Draft.pdf Schematic shows flows bypassing the North Delta – See page 26</p>
2012	<p>http://www.water.ca.gov/waterconditions/docs/EmergencyChannelClosureLocationReport-FINAL-June2012.pdf page 9 etc-barriers due to floods http://www.water.ca.gov/floodmgmt/docs/Delta-FIP-IS-MND-8-15-2013_FINAL-June2013.pdf page 60 of 262</p>



THE NAME GAME: SAME PROJECT, DIFFERENT NAMES:

http://www.deltarevision.com/maps/restoration_plans_experiments/DHCCP_b_conveyance_4.pdf 2008 BDCP

http://www.deltarevision.com/2011/calFed/delta_improvements_package.jpg

http://www.deltarevision.com/maps/Resilient_Adaptive_Delta_Map.pdf

http://deltarevision.com/maps/conveyance-canals/2007cross_channel.jpg

http://www.deltarevision.com/2011/calFed/large_axis_owners.jpg

http://www.deltarevision.com/2011/calFed/delta_corridors_elements.jpg

http://www.deltarevision.com/2011/calFed/2008_fresh_water_corridor.jpg

http://deltarevision.com/maps/conveyance-canals/4-gates_armored_pathway_map%20%282%29.JPG

http://www.deltarevision.com/2011/calFed/bdcp_central_conveyance_2010.jpg

<http://deltarevision.com/images/pdfs/2006ReEnvisioningDelta.pdf>

local proposals: <http://snugharbor.net/images2012/deltastuff/2012-summary-proposed-delta-projects.JPG>

2013 http://www.water.ca.gov/floodmgmt/docs/Delta-FIP-IS-MND-8-15-2013_FINAL-June2013.pdf rock stockpiling for FLOOD protection from excess water or earthquake

2013	<p>California water plan published Delta outflow chart shows there is unaccounted for waterflows. Data later corrected. In the meantime, data may have been used for the flow and effects recalculations for DSM2-flow and EC effects modeling for the barriers proposal</p> <p>http://www.snugharbor.net/images-2014/bdcp/flows/unaccounted_diversions.pdf http://www.snugharbor.net/images-2014/comments/wheresthewater/georgianaflowsummary.pdf Georgiana unaccounted water</p>
2013	<p>http://www.spk.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2137/Article/479427/delta-wetlands-project.aspx http://www.spk.usace.army.mil/Media/RegulatoryPublicNotices/tabid/1035/Article/479494/spk-1901-09804-delta-wetlands-noi.aspx based on this 2001 decision: http://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/decisions/d1600_d1649/wrd1643.pdf</p>
2014	<p>March DWR barrier plans and gate designs</p> <p>Nss questions: http://www.snugharbor.net/dwr_reporting_of_inflow_and_outf.html http://www.snugharbor.net/images-2014/comments/wheresthewater/cdecdatagaps.pdf</p>
2014	<p>Fall: DWR discloses the existence of the in-water berm finally</p>
2014	<p>http://www.water.ca.gov/waterquality/drinkingwater/public_docs/RTDF%20Graphical%20Station%20Archive/2014/7-15-2014%20to%208-14-2014%20Station%20Graphical%20Updates.pdf example of Sacramento River flows http://www.water.ca.gov/waterquality/drinkingwater/public_docs/RTDF%20Graphical%20Station%20Archive/2014/2-15-2014%20to%203-13-2014%20Station%20Graphical%20Update.pdf</p>
2014	<p>http://www.usbr.gov/mp/BayDeltaOffice/Documents/Current_Implementation/2014_Drought_info/DWR_Reclamation_Change_Request_Package_04_292014.pdf forcast of ec in 2014</p>
2015	<p>https://bdo-portal.water.ca.gov/documents/92073/249680/ESS-03+Management+Draft_02132015.pdf 3 Mile Slough</p>
2015	<p>DWR barrier plans:</p> <ol style="list-style-type: none"> a. Use of flood protection materials b. No disclosure of how much fresh water flow will be “saved” c. No disclosure of salinity impact to lower Steamboat Slough and lower Sacramento River 2010 report: http://www.deltarevision.com/2011/calfed/ss-reduce_flow.jpg d. No discussion about proposal to put barrier at west end of Steamboat Slough e. No discussion about computer modeling showing expected water levels on Steamboat Slough f. Failure to disclose the beneficiaries of Steamboat and Sutter Slough barriers, since just the barrier at False river would protect cc:: http://www.deltarevision.com/2011/calfed/delta_land_owners-centralcanalarea.jpg
2015	<p>http://www.water.ca.gov/frankstract/ Franks Tract “delayed”</p>
Barrier impacts	
	<p>Use of stockpile intended to protect from flood or earthquake emergency</p>
	<p>Transportation: block or severely restrict use of local roads for local and business traffic for up to 4 months each year barriers installed. J-Mac Ferry connecting SR 220 will be closed for the barrier installation and demolition times, severely increasing travel time in the Delta for those landowners and business enterprises. If the Rio Vista Ferry is broken (happens often) and there is an accident on Hwy 12 blocking Rio Vista bridge vehicular use, transportation through the Delta will halt until the bridge accident is cleared. Four marinas, a waterfront RV park and a Sacramento County Park, and at least 50 waterfront residential homes with docks could end up with access for their owners or customers greatly curtailed or eliminated for days,</p>

	weeks or months at a time. In addition, emergency support equipment and personnel access to the affected island could be greatly hindered, causing undue risk to humans and personal property.
	Navigation: block normal through-passage use of the historic Steamboat Slough for boats over 24'. Depending on tides, water levels at extreme low tides may render some parts of the waterway unsafe for existing boating use. Invasive aquatic species also impede navigation: http://www.science.calwater.ca.gov/pdf/workshops/workshop_dci2_presentation_07_herbold.pdf http://deltarevision.com/2006_docs/2006_BW_egeria_presentation.pdf.pdf Page 20 Logs http://snugharbor.net/reasonforlogsonsteamboat.JPG
	Water quality: west side of barriers may experience saltwater intrusion at levels not seen in the Delta before, at least on Steamboat Slough East side of the barriers will be fresh water and that water will be exported to other areas of the state via the DCC and Georgiana Slough.
	Agriculture: Not only will irrigation on Grand, Ryer, Sutter Island be hindered but encroachment of saltier groundwater may permanent make the prime farmland soil as bad as the salty soils of Westlands Water District, one of the SoCal water agencies that will get the diverted North Delta water.
	Landscape: No disclosure regarding the impacts to the "restoration" sites and the native freshwater vegetation that could be killed by salinity encroachment or to low tides. Landside trees that could be impacted by higher salinity are not considered.
	Business and recreation: DWR believes there is no significant impact from the 4 foot wake of barges going back and forth past recreation docks; no significant impact from low tide draining of lower Steamboat Slough to a depth that potentially renders the waterway unsafe for power boating; no significant impact to the area businesses such as grocery stores, farm stands, produce transport, gas fracking operations and "restoration" projects and levee work planned, as Delta traffic will be greatly slowed during the barrier install and demolition periods.
	Salmon migration pathways http://www.science.calwater.ca.gov/pdf/workshops/workshop_dci2_presentation_07_herbold.pdf page 29

- More links regarding THE NAME GAME
- Unanswered questions regarding the missing water exports: http://snugharbor.net/dwr_reporting_of_inflow_and_outf.html
- Delta wetlands project:
 - [Parent Directory](#)
 - [00-feis-vol1-stacked.pdf](#)
 - [01-feis-vol1-frontmatter.pdf](#)
 - [02-feis-vol1-ch1.pdf](#)
 - [03-feis-vol1-ch2.pdf](#)
 - [04-feis-vol1-ch3.pdf](#)
 - [05-feis-vol1-ch3a.pdf](#)
 - [06-feis-vol1-ch3b.pdf](#)
 - [07-feis-vol1-ch3c.pdf](#)
 - [08-feis-vol1-ch3d.pdf](#)
 - [09-feis-vol1-ch3e.pdf](#)
 - [10-feis-vol1-ch3f.pdf](#)
 - [11-feis-vol1-ch3g.pdf](#)
 - [12-feis-vol1-ch3h.pdf](#)
 - [13-feis-vol1-ch3i.pdf](#)
 - [14-feis-vol1-ch3j.pdf](#)

- [15-feis-vol1-ch3k.pdf](#)
- [16-feis-vol1-ch3l.pdf](#)
- [17-feis-vol1-ch3m.pdf](#)
- [18-feis-vol1-ch3n.pdf](#)
- [19-feis-vol1-ch3o.pdf](#)
- [20-feis-vol1-ch4.pdf](#)
- [21-feis-vol1-ch5.pdf](#)
- [22-feis-vol1-ch6.pdf](#)
- [23-feis-vol1-ch7.pdf](#)
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