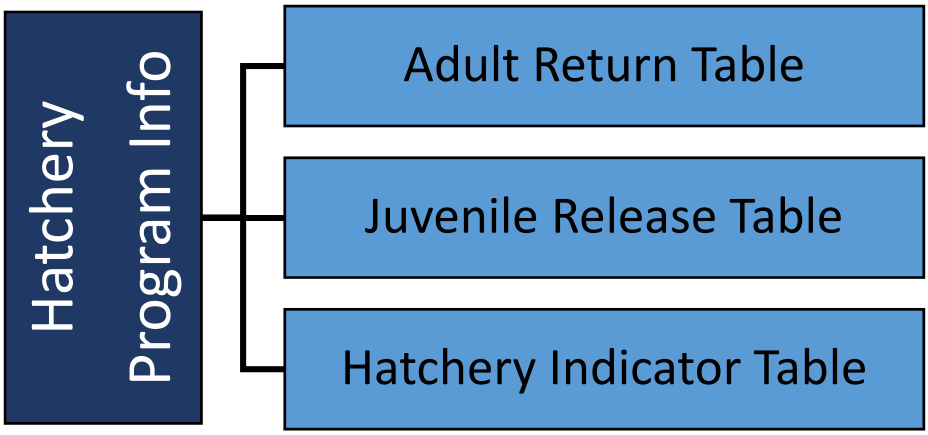
Hatchery Program Info
Adult Return Table
Juvenile Release Table
Hatchery Indicator Table

Subcontent Group	Field ref #
Program information	1-9
Adult information	10-22
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Subcontent Group	Field ref #
Program information	1-9
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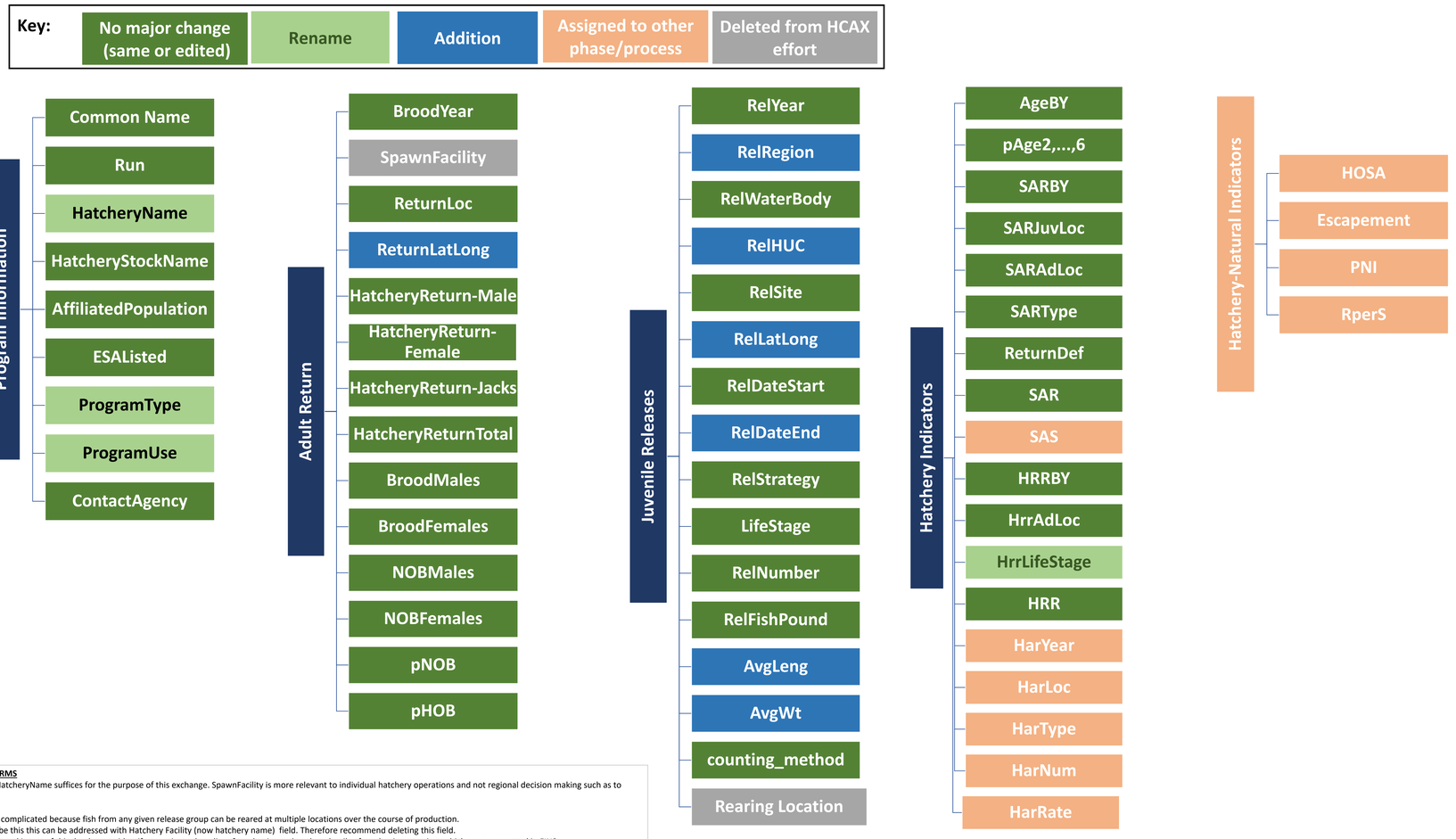
Hatchery Indicators	37-45

Summary of changes in fields from previous version per group input:



NOTES ON DELETED FIELD TERMS

1) SpawnFacility: deleted as HatcheryName suffices for the purpose of this exchange. SpawnFacility is more relevant to individual hatchery operations and not regional decision making such as to address disease issues etc

2) Rearing Location: This gets complicated because fish from any given release group can be reared at multiple locations over the course of production.
General direction appears to be this this can be addressed with Hatchery Facility (now hatchery name) field. Therefore recommend deleting this field.
Deletion is consistent with general intent of this database to identify quantity and quality of production rather than details of production practices which are represented in FINS.

NOTES ON TERMS ASSIGNED TO OTHER PHASES/PROCESSES

1) The hatchery-natural indicators are suggested to be reassigned to the biologists/data stewards that provide data for the Natural Origin estimates as the hatchery data are likely collected by these same individuals (primarily involve assessments of fish on the spawning grounds).

2) SAS: For the purposes of this dataset survival data would be most commonly available at the point of return to the hatchery, SAS would be defined at another point of return (for instance Lower Granite Dam). Recommend moving SAS to later phase from the priority database due to its limited availability and hatchery-specific definition and application.
May need to work on standardizing the SAS definition among the datasystems (e.g., RMIS).

3) Harvest: Recommend moving to later phase. Work groups expressed mixed opinions on harvest. Hatchery-stock specific harvest estimates must be derived by a complicated series of fishery-specific calculations. Estimates are sometimes made by fishery managers but not for hatchery evaluation purposes. Where hatchery stocks are used as index stocks for fishery management, numbers may be reported. However, in most cases numbers are not readily accessible. For this reason, it is recommended that harvest numbers not be included as an initial focus of the hatchery database effort. Need to broaden to bring in Ocean and in-river (upper/lower) harvest managers who use different tag/info to calculate their estimates. May want to bring in Pacific Salmon Commission to understand what data and how they calculate harvest estimates (e.g. Chris Ryding).

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Program information	CommonName	Common name of the species of fish	Chinook salmon, Chum salmon, Coho salmon, Sockeye salmon, Steelhead	Start with species in CAX and expand as needed, such as if resident fish species are exchanged
Program information	Run	Run of fish	Spring, Summer, Fall, Late fall, Winter, Spring/summer, Both summer & winter, Early, Late, Both early & late, Summer/Fall, Landlock, N/A	Start with run in CAX and expand as needed. Need to clearly define each run so data providers will select consistently. If a set o definitions do not exist, then come to agreement on a definition for each run type and include in DES. Dan R WDFW may be able to assist.
Program information	HatcheryProgramName	A concerted set of artificial production activities, that may span one or multiple locations such as hatchery facilities and acclimation sites, that generally focuses on one species of fish or population to address harvest supplementation, mitigation, conservation, and/or recovery needs. More than one hatchery program may be operated within the same location	Start with the list in Table 84 of the 2017 Mitchelle Act BiOP and update to reflect agency/tribe official progra name. 2017 Mitchell Act BiOP: https://media.fisheries.noaa.gov/dam-migration/mitchell-act_opinion_011517.pdf	Consider including fields for alternative HatcheryProgramNames used by HSRGs and HGMPs to facilitate use by data consumers. These alternative fields may need to be populated by a StreamNet data specialist by extracting the content from final HGMPs and HSRGs documents. Note: it may be tricky to identify which release group from a given stock/facility belongs to a specific hatcheryprogram so this may need additional input from the hatchery bios working on the various programs to get this correctly identified. Accompishing this is very informative for reporting agains specific hatcheryprogram release targets.
Program information	Authorization/Mandate	The legal authoraization or mandate directing funding of the hatchery program.	Start with list populated for the Columbia River Basin hatchery programs included in the NPCC Program Tracker such as Mitchell Act, FERC License, Northwest Power Act (contact Maureen Hess mhess@nwcouncil.org)	Note that there may be multiple authorization/mandate
Program information	FundingSource	The major source(s) of funding which are often associated with the legal authorization or mandate.	Start with list populated for the Columbia River Basin hatchery programs included in the NPCC Program Tracker, e.g. USFWS, BPA, (contact Maureen Hess mhess@nwcouncil.org)	Note that there may be multiple funders
Program information	HatcheryFacilityName	The central facility where the majority of production occurs for a specific group of hatchery fish.	Obtain individual list from each agency/tribe and develop a standardized list to be used.	While different stages of production may occur at different locations or facilities, hatchery name is the primary identifying label, and is often the primary place from which the fish were released. This field is not intended to describe all the specific facilities involved in production of a particular lot of fish. Often, but not always, this is the location where most adults are collected, incubation and rearing occurs and fish are released from. If there is no official agency/tribe list could start with current hatchery facility names submitted to StreamNet Fish Facilities, PTAGIS, RMIS, FPC, NPCC to create a master list, which will be vetted and supplemented, if needed. Include lat/long or UTM to faciliate mapping on tools and on the StreamNet Fish Facilities For data consumers - create a crosswalk of the standard hatcheryfacilityname list created for HCAX and crosswalk to the HatcheryFacility names that were submitted to RMIS/RMPC, FishNet, FishGen, PTAGIS, StreamNet Fish Data Monitoring (Trends) as each data system have slight variations in how the facilitynames have been submitted

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Program information	HatcheryStockName	Stock of hatchery fish this record describes.	Obtain individual list from each agency/tribe and develop a standardized list to be used.	Hatchery agencies define specific stocks in each of their programs. Stock names will be identified by the source agencies and gathered by the data managers from the respective agency definitions. The hatchery stock name is intended to describe an operational unit which may be derived from one or more sources. It is not intended to identify all of the sources or how they might change over time. Several hatchery stocks of the same species and run type may be produced by a hatchery. A stock might also be produced by multiple facilities. Some stocks may be local but others may be non-local. For data consumers - create a crosswalk of the standard hatcherystockname list created for HCAX and crosswalk to the hatcherystockname that were submitted to RMIS/RMPC, FishNet, FishGen, PTAGIS, StreamNet Fish Data Monitoring (Trends) as each data system have slight variations in how the hatcherystockname have been submitted
Program information	AffiliatedPopulation	Population name of fish represented by this record.	Start with CAX natural population list. For populations not included in the CAX list, add population names from MAFAC CBP list.	Natural population associated with the hatchery stock where applicable. Note may need to split this field or add a way to indicate whether the affiliated population repreents the local population from which the hatchery stock is derived or the population affected by hatchery interactions. Hatchery stocks don't always align with local populations such as might be defined by PopID based on specific natural-origin population. PopID code can also be considered as a separate field as appropriate (although some hatchery stocks may not have a matching POPID. This label helps link to natural population data pHOS, PNI, etc. Recommend reference to a comprehensive master list that also identifies Recovery domain, ESU/DPS, etc.
Program information	ESAListed	Hatchery fish are considered part of an ESA listed ESU or DPS	Yes/No	This field is included because some hatchery stocks are listed and it potentially affects how they are treated by NOAA.
Program information	ProgramType	Genetic management goal for broodstock usually aiming at either minimizing genetic divergence or allowing genetic divergence relative to naturally spawning populations	Integrated, Segregated, Not defined/combination;	For integrated we need an optional field that captures range of HOF/NOF integrated e.g., less than 25% HOF; 25-50% HOF; 51-75%, over 75%.
Program information	ProgramUse	Primary management purpose for which the hatchery fish are being produced	Harvest, Recovery, Recovery/Harvest, Conservation, Research	Can have multiple use such options selected. It is understood that most hatcheries are there to mitigate for an impact, so we are focusing on the management purpose here.

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Program information	ContactAgency	Agency, tribe, or other entity.	Start with CA DES list and update and expand as needed.	Considered additional field t oalign with CA DES such as identifying person responsible for these data and the best contact for questions that may arise about this data record. CRITFC - Columbia River Inter-Tribal Fish Commission CTCR - Confederated Tribes of the Colville Reservation YN - Confederated Tribes and Bands of the Yakama Nation CTUIR - Confederated Tribes of the Umatilla Indian Reservation CTWSRO - Confederated Tribes of the Warm Springs Reservation of Oregon IDFG - Idaho Department of Fish and Game NPT - Nez Perce Tribe ODFW - Oregon Department of Fish and Wildlife SBT - Shoshone-Bannock Tribes STI - Spokane Tribe of Indians USFWS - U.S. Fish and Wildlife Service WDFW - Washington Department of Fish and Wildlife
Adult information	BroodYear	Calender year when majority of broodstock were spawned	format YYYY	Hatchery numbers are typically reported by brood year (hatchery terminology generally equivalent to spawning year e.g., 2021). In some cases, year of return to freshwater may be different from the year of actual spawning (e.g., steelhead, some coho) - a standard convention will need to be applied in these cases. Fish may also be collected in a different year from the year that they are spawned so we are focusing on the year they are spawned. CA DES has a template that could be applied here. Note: that althought this term is similar to SpawnYear, we don't want to replace all the hatchery terms with natural origin terms. As the hatchery terms do reflect what is happening correctly (for instance we woudn;t want to rename natural origin spawnyear to brood year either. But there may still be some synergies/overlap between BroodYear and SpawnYear that we can leverage.

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Adult information	ReturnLoc	Location(s) at which returning adults are collected and counted.	To be identified by data managers based on values reported in entity databases.	Keep flexibility of having multiple return locations identified. Bios beleive we would lost a lot of resolutions if we expand to a broader spatial scale. Do plan that a stock that has multiple return locations, likely because had multuple release locations. Depending on what the data sets look like within partner agencies/tribes we may need to explore if we allow a larger area to Need to accomodate for the variability of return locations and allow data suppliers to input various return locations for each adult as appropriate. This is intended to be the return to the hatchery (e.g., Hatchery trap) but hatchery fish can also sometimes be collected at dams, weirs or other locations. Some or all of returns might subsequently be used for brood stock. Return location also allows for the possibility of different locations of returning hatchery fish to be identified. The return location may or may not be the same as the spawning location (e.g., facility). For the purposes of this database, locations of specific facilities utilized over the course of the production process are not included. Note that these do not generally include hatchery fish returning to the spawning grounds to spawn naturally - this is addressed under a separate item. Note that hatchery fish that are released back to stream can be recounted multiply times so the definition needs to be more specific to only include those that are counted one time at a specific location. Note StreamNet's approach uses two (2) locations (the Trend.LocationID deferring to the hatchery location on the stream and the HatchRetDetail.CaptureLocationID). StreamNet's two locations approach / field definition aren't murky on what's expected: HatchRetDetail.CaptureLocation: Code for the location where fish were caught. Location code from LocMaster table for hatchery, trap, dam, or stream
Adult information	RetLatLong	Coordinates of return site	Latitude and Longitude e.g., 44.307875; -114.7183861	
Adult information	Hatchery return - Male	Number of male adults returning to and collected by the hatchery at the specified return location.	format 5 digits: #####	Number of fish returning to a hatchery is a key metric of performance and these numbers are routinely reported by the agencies. Some or all of these fish are utilized as broodstock. Returns are generally hatchery-origin fish produced by that hatchery but can also include natural-origin and strays from other hatcheries. Need to seperate out the number of HOF male and NOF male returning and not just provide a total. Split out HOF, NOF, and if available strays for the HatcheryReturn fields to better support SAR and HRR They are also the basis for related metrics such as SAR and HRR. Note that these are typically reported by brood (spawning) year.

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Adult information	Hatchery return - Female	Number of female adults returning to and collected by the hatchery at the specified return location.	format 5 digits: #####	Number of fish returning to a hatchery is a key metric of performance and these numbers are routinely reported by the agencies. Some or all of these fish are utilized as broodstock. Returns are generally hatchery-origin fish produced by that hatchery but can also include natural-origin and strays from other hatcheries. Need to seperate out the number of HOF female and NOF female returning and not just provide a total. Split out HOF, NOF, and if available strays for the HatcheryReturn fields to better support SAR and HRR They are also the basis for related metrics such as SAR and HRR. Note that these are typically reported by brood (spawning) year.
Adult information	Hatchery return - jacks	Number of jacks returning to and collected by the hatchery at the specified return location.	format 5 digits: #####	Jacks are precocial male salmon that have spent one winter less in the ocean than the youngest adult male of a given species. Because they are younger, jack salmon are smaller than other age classes. Number of fish returning to a hatchery is a key metric of performance and these numbers are routinely reported by the agencies. Some or all of these fish are utilized as broodstock. Returns are generally hatchery-origin fish produced by that hatchery but can also include natural-origin and strays from other hatcheries. Need to seperate out the number of HOF male and NOF male returning and not just provide a total. Split out HOF, NOF, and if available strays for the HatcheryReturn fields to better support SAR and HRR They are also the basis for related metrics such as SAR and HRR. Note that these are typically reported by brood (spawning) year.
Adult information	Hatchery return - total	Total number returning to and collected by the hatchery facility (sum of males, females and jacks)	format 5 digits: #####	Number of fish returning to a hatchery is a key metric of performance and these numbers are routinely reported by the agencies. Some or all of these fish are utilized as broodstock. Returns are generally hatchery-origin fish produced by that hatchery but can also include natural-origin and strays from other hatcheries. They are also the basis for related metrics such as SAR and HRR. Note that these are typically reported by brood (spawning) year. Split out HOF, NOF, and if available strays for the HatcheryReturn fields to better support SAR and HRR Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES
Adult information	BroodMales	Total number of males used in spawning, which includes hatchery and natural origin fish of all ages.	format 5 digits: #####	Broodstock are adult fish used by hatcheries to propagate the next generation of fish. Hatchery programs report numbers of fish spawned by sex. Number of brood males includes the number of adult males and jacks spawned for broodstock. (Many hatcheries spawn only adults but in some cases jacks might also be used so good to capture the number of adult versus jack). Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES

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Adult information	BroodFemales	Total number of females used in spawning, which includes hatchery and natural origin fish of all ages.	format 5 digits: #####	
Adult information	NOBMales	Number of natural origin males used in spawning.	format 5 digits: #####	Based on any adults and jacks used for broodstock. Suggest adding a new categories pNOBJacks as the percentage of jacks used in the broodstock. so split out the current NOB and pNOB to handle number of adults and jacks seperately and not as a total Should specify if jacks are included. Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES Having natural origin broodfish number allows combing with natural origin escapement to calculate 'mining rate'
Adult information	NOBFemales	Number of natural origin females used in spawning.	format 5 digits: #####	Having natural origin broodfish number allows combing with natural origin escapement to calculate 'mining rate'
Adult information	pNOB	Proportion of broodstock spawned in a hatchery that are natural origin fish.	format #.##	Calculated value from broodstock numbers identified previously. Includes adults and jacks (if any jacks were used). Should specify if jacks are included. Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES
Adult information	pHOB	Proportion of broodstock spawned in a hatchery that are hatchery origin fish.	format #.##	Calculated value from broodstock numbers identified previously. Includes adults and jacks (if any jacks were used). Should specify if jacks are included. Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES
Juvenile releases	RelYear	Year of release	format: YYYY	Generally one or two years after brood year depending on species. Release years may vary for the same broodstock. For example, some Chinook populations have fall and spring releases that are in different years. Need a mechanism to address this.
Juvenile releases	RelRegion	Region of hatchery release location.	e.g., RMIS domains LOCR - Columbia River Basin - below Bonneville Dam & Willamette CECR - Columbia River Basin - Bonneville to McNary Dam UPCR - Columbia River Basin - McNary Dam upstream SNAK - Snake River Basin - Mouth to Hells Canyon Dam USR - Snake River Basin - Above Hells Canyon Dam	Useful for binning of releases into different areas without having to cross reference coordinates or HUC codes.

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Juvenile releases	Rel8-HUC	Hydrologic unit code of release site	format 8 digits: ######## and provide the standard subbasin name in separate field	8-code HUCs (subbasin level) analogous to medium-sized river basins e.g., Lower Cowlitz. Washington = 17080005. Also provide standard subbasin text name. May also want to look at whether including corresponding RMIS location name is helpful for data consumers.
Juvenile releases	RelSite	The specific name of the location(s) for where the juveniles were released, , which could include the name of an acclimation site, hatchery facility, and waterbody.	Identified by data managers based on values reported in entity databases. For waterbodies start with the CAX list.	Specific location of release (e.g., Cedar Creek in the Lewis River). For instance, fish can be released directly from the hatchery or transported elsewhere for acclimated or direct release. This may be any of the following: the name of a hatchery facility, the name of a water body and text description of where on that stream or river (river mile preferred, but river kilometer, lat/long, or other characterization allowable). Note: a standardized geospatial definition for this field would be appreciated by data consumers.
Juvenile releases	RelLatLong	Coordinates of release site		Latitude and Longitude e.g., 44.307875; -114.7183861 some would like an optional field for rkm similar to PTAGIS and not just RelLatLong, explore what is feasible. Also should explore if we only need some of the locationfields populated by the data providers and then use that to autopopulate the other fields.
Juvenile releases	RelDateStart	Start date of release	format: YYYYMMDD	Reflects release group vs. individual truck loads. Some releases, particularly volitional for instance, can extend over a period of days and are still considered to be one group.
Juvenile releases	RelDateEnd	End date of release	format YYYYMMDD	Reflects release group vs. individual truck loads. Some releases, particularly volitional for instance, can extend over a period of days and are still considered to be one group.
Juvenile releases	RelStrategy	Strategy used to liberate the majority of release group	Forced release Volitional release Mixed release strategies Emergency release Egg box	Note that there could be two release strategies used for one release so have the 'mixed release strategy category'. Useful for hatchery mgmt standpoint. Hatchery eval also uses this field, want to know if there is a significant change in survival the why there is a change.

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Juvenile releases	LifeStage	The general life stage of the fish at the time of release.	Zygote (eyed eggs) Emergent fry Fed fry Fingerling Advanced Fingerling Yearling Pre-smolt Smolt Adult Multiple release stages [requires a text field for comments]	e.g., Eggs, unfed fry, fed fry, fingerling, yearling, pre-smolt, smolt, adult. Different life stages would be treated as separate release groups. Will want to define each lifestage to ensure consistent use. May have multiple life stages released from a single spawning year
Juvenile releases	RelNumber	Number of fish released at a given site and date		Release numbers are tied to release site, release date, and life stage; Applies to the entire release group. Timeframe for the release group - start date and end data due to logistics.
Juvenile releases	RelFishPound	Fish per pound for a release group.		Fish included should all be the same life-stage and be released using the same strategy. Applies to the entire release group that share the same lifestage at the time of release (e.g. yearling versus sub-yearling) and are released using the same strategy (e.g. volitional). Need to clearly define what is consider a release group to clarify we are not tracking individual truck loads of fish or individual subset of fish released over several days. This field may need to contain more than one RelFishPound number if the fish from a specific stock/broodyear are released at different times over the year (at different life stages) or using different release strategies.
Juvenile releases	AvgLeng	Mean length at release (mm)		
Juvenile releases	AvgWt	Mean weight at release (g)		
Juvenile releases	CountingMethod	Enumeration method used to determinate the number of Juveniles released	Book estimates Actual physical counts Petersen estimates Weight derived estimates Volumetric conversion Feed conversion estimates Split Inherited Water Displacement	some of the terms may be equivalent. Should work with biologists to refine the list of terms if possible and define these terms.

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Hatchery Indicators	ReturnYr	Return year for which age composition of fish at return is estimated.		Returns in any given year can include fish of different ages depending on species.
Hatchery Indicators	pAge2	The proportion of fish in the year of return that were age 2 (brood year + 2).	These age fields contain proportions by age for fish in the hatchery return. They are not the numbers of fish actually aged, nor are they the expanded numbers for a population. Consider this scenario: · 10,000 fish return. ·500 fish were aged. Of the 500, 100 were age 2. In this case the value in this field should be 0.20. The values of the age proportions for all ages should sum to 1.00 ± 0.01.	This information is needed for estimation of SAR and HRR. May want to rename fieldname to align with existing CA DES if indeed the same Split age fields (pAge2 etc) into male and female , NOF and HOF, Consider adding a total number aged field so the precsion of tha ages can be estimated or an optional filed for SE of the ages.
Hatchery Indicators	pAge3	The proportion of fish in the year of return that were age 3 (brood year + 3).	See above	See above
Hatchery Indicators	pAge4	The proportion of fish in the year of return that were age 4 (brood year + 4).	See above	See above
Hatchery Indicators	pAge5	The proportion of fish in the year of return that were age 5 (brood year + 5).	See above	See above
Hatchery Indicators	pAge6	The proportion of fish in the year of return that were age 6 (brood year + 6).	See above	See above
Hatchery Indicators	SarBY	Brood year corresponding to SAR estimate.		Make sure that the lifestage field is connected to the SAR (SAR lifestage). Need SARBY as this is used by hatchery managers/decision-makers SARs are a calculated value from release number, return number and age composition of return.
Hatchery Indicators	SAROutYr	The year for which this SAR is calculated, defined as the year the group migrated to the ocean. This is often not the same as brood year		Make sure that the lifestage field is connected to the SAR. Also want SAR outmigrating year as this is used by other researchers/managers/decision-makers. SARs are a calculated value from release number, return number and age composition of return.
Hatchery Indicators	SarJuvLoc	The specific named location(s) for where the juvenile abundance numbers were determined.	Generally, this list will correspond to the list of hatchery release sites for juveniles.	Typically at release for hatchery fish but could include name(s) of fluvial water body(ies, impounded fluvial water body (reservoir), lentic water body, dam, weir, trap etc.) “

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Hatchery Indicators	SarAdLoc	The specific named location(s) for where the adult abundance numbers were determined.	To be determined by data managers based on how returns are reported in entity databases.	May be estimated to various points in the return (e. g., dams or the hatchery). Typically for hatchery fish, this is measured at the point of return to the hatchery where return number is most widely determined.
Hatchery Indicators	SARtype	The type of return estimate, in terms of what fish are included in the estimate of total returns.	Total including adults and jacks Adults only (excluding jacks) Jacks only Females only	Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES
Hatchery Indicators	ReturnDef	How return is defined for this SAR estimate	Fish surviving to adulthood Returns to a dam Returns to river mouth Returns to population boundary Returns to spawning ground Returns to a weir Returns to a PIT tag array Estimated number of spawners Number of marked adult fish captured (harvested)· Adult fish migrating to/past a point(s)	Ocean adults, dam returns, river mouth return, hatchery return,…
Hatchery Indicators	SAR	The point estimate of the number of returning adults, divided by the point estimate of the number of smolts that produced those returning adults.	Express these values as percentages (numbers from zero to one hundred), with two digits to the right of the decimal point. Examples: .020 = 2.00, .0015 = 0.15. This field holds a numeric value only -- the percent sign is implied but not included. Do NOT include repeat spawners in the number of adult returns. (A fish only returns once from smolting; subsequent returns are not appropriate for inclusion in smolt-to-adult estimates because they head to sea as adults on subsequent trips and thus are not exposed to the same suite of mortality factors.)	Requires age or tag information for most species. Keep flexibility to have multiple SARs depending on juvenile and adult locations Note: If return sites do not provide a census count, SAR will be underestimated. Consider optional field with something like: census (Known 100% detection efficiency), assumed 100% detection efficiency, modeled (incorpatates detection efficiency in the SAR estimate - CJS model). Note: there's different ways to calculate SARS. You can do it for a outmigration year. Hatchery typically work off of a brood year. You also age fish at return and then can combine multiple years of returns in the SAR calculation. So describing the specific SAR calculated and exchanged may need some work to clearly communicate in the DES.
Hatchery Indicators	HRRBY	Brood year corresponding to HRR estimate.		Strays should be excluded from HRR as feasible. So may need to indicate if strays were excluded or if it wasn't possible to determine number of strays.

Category	Field Name	Definition	Proposed list of terms	Further guidance *(note: moving forward into Data Manager phase, please track changes to terms and definitions that are suggested by the Data Managers so we can confirm the changes ti the broader bio/data group of participants to make sure the changes make biological sense)*
Hatchery Indicators	HrrAdLoc	The specific release and capture site being evaluated for the adult return. Release and capture site used for evaluation is requested so then group or split as desired the release sites for evaluation of HRR	To be identified by data managers based on values reported in entity databases.	The capture site is intended to be the primary return location such as the hatchery (e.g., Hatchery trap) located ear the hatchery/release location but hatchery fish can also sometimes be collected at dams, weirs or other locations. When calculating HRR you need to know the specific juvenile release location you will be using and the specific adult return location as well. Depending on how the database tables are connected, the specific juvenile release location (RelSite) could provide the specific release information used to calculate HRR. and This HRRAdLoc would focus on identifying the specific adult capture site used to calculate the HRR value.
Hatchery Indicators	HrrLifeStage	The lifestage of return estimate, in terms of what fish are included in the estimate of total returns.	Total including adults and jacks Adults only (excluding jacks) Jacks only	Consider using existing approach to document jacks and similar abreviations for Including jacks (ij) / excluding jacks(ej) as used in CA DES
Hatchery Indicators	HRR	The ratio of the number of returning hatchery adults relative to the number of broodstock used to produce them.	format #.##	Also known as the adult-to-adult replacement rate. Requires age composition of return. Strays should be excluded from HRR as feasible. So may need to indicate if strays were excluded or if it wasn't possible to determine number of strays. Note that this is a version of RperS (and potentially NOSA) so there may be some synergies with existing RperS and NOSA CA DES tables (per Dan R comment)

References included	**Link**	
Coordinated assessments data exchange standard	Data Exchange Standards - StreamNet	https://www.streamnet.org/resources/exchange-tools/des/
RMIS	RMIS link	https://www.rmpc.org//files/PSC_V41_Specification.pdf
ODFW Annual Fish Propagation Report	Fish Propagation Annual Report for 2012 (state.or.us)	https://www.dfw.state.or.us/fish/hatchery/docs/2020_Fish_Propagation_Annual_Report.pdf
WDFW Hatchery Escapement Report	Hatchery escapement reports | Washington Department of Fish & Wildlife	https://wdfw.wa.gov/fishing/management/hatcheries/escapement#annual-reports
PTAGIS	PTAGIS Data Specification	https://www.ptagis.org/Content/DataSpecification/index.htm?context=10
FPC	FPC Hatchery Meta Data	https://www.fpc.org/documents/metadata/FPC_Hatchery_Metadata.asp
FINS database	private access	https://www.finsnet.org/#